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ICONES PLANTARUM;

OR

FIGURES,

WITH

BRIEF DESCRIPTIVE CHARACTERS AND REMARKS,

OF

NEW OR RARE PLANTS,

SELECTED FROM THE AUTHOR'S HERBARIUM.

By SIR WILLIAM JACKSON HOOKER, K.H.,

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Fitch del et lith

Reeve & Nichols, imp.

TAB. DCCCI.

Puneeria coagulans, *Stocks.*

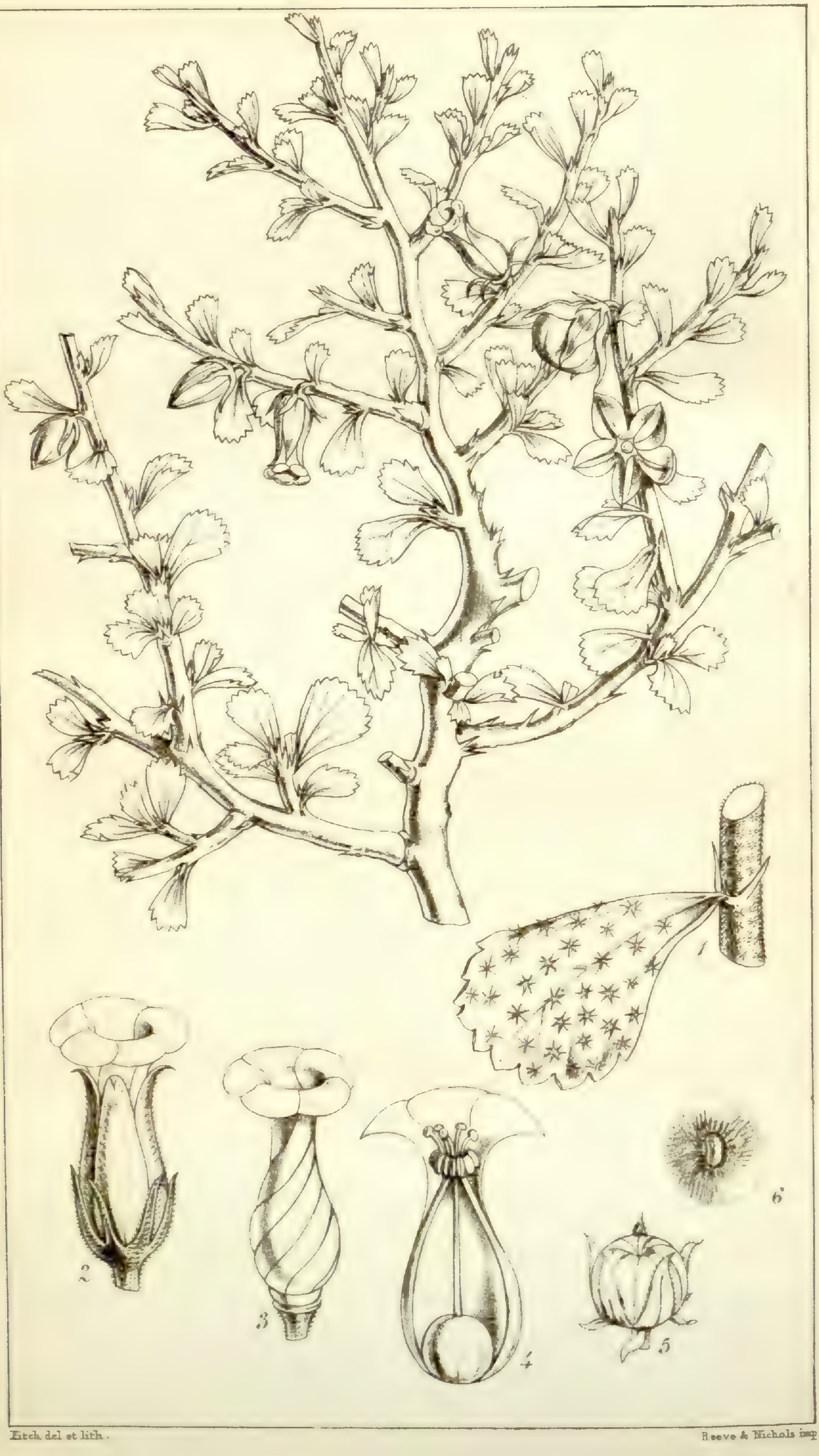
Puneeria, *Stocks* (Solaneæ), *nov. gen.*—*Flores* abortu dioici. *Calyx* 5-fidus, demum increscens, fructum *arcte* cingens. *Corolla* hypogyna, campanulata, limbi 5-partiti laciniis æstivatione valvatis apice intruso-inflexis. *Stamina* 5, prope basin corollæ pilorum fasciculis instructam inserta. *Ovarium* biloculare, placentis multiovulatis. *Stylus* simplex. *Stigma* bilamellatum. *Bacca* calyce cincta. *Semina* in loculis plurima, auriculiformia. *Embryo* intra *albumen* carnosum arcuato-annularis, cotyledonibus linearibus, radicula elongata.—Suffrutex *Cabulico-Brahuica, pube floccoso-stellata (indumentum rasum cineraceum formante) induta,* foliis *lanceolato-oblongis inæquilateris crassiusculis sæpe pseudo-geminis paginis concoloribus,* floribus *dioicis in axilla aggregatis,* pedunculis *deflexis*: Masc. staminibus *corollæ tubum æquantibus,* ovario *mutico astylo*; Fœm. staminibus *dimidium corollæ haud attingentibus,* filamentis *brevissimis,* antheris *depauperatis effœtis.*

Puneeria coagulans, *Stocks in Wight's Ill. Fl. Ind. Or. v.* 4. *t.* 1616.

Hab. Throughout Scinde, in rocky and cultivated soil; also in Beluchistan, *Stocks,* n. 413; and Affghanistan, *Griffith,* n. 657.

It is one of the best-known plants in all these countries from its economical properties, and bears the name of *Puneer-bund* (cheese-maker), from its being used by the Beloochies and Affghans in making cheese (*puneer*), as a substitute for rennet. Its dried berries are sold in the bazaars, and are regarded as the Hub-al-Kaknuj of Persian and Arabian works on Materia Medica. The plant grows 1–3 feet high, and is readily recognized by its peculiar ash-grey hue. Found from the level of the sea to 3,000 feet. Griffith found it at Landi-Khana, in the Khyber Pass (2,488 feet), and at Sera in the Punjab. (Griff. Journal, p. 499; "Physaloides of Lundy Khana.") *Stocks.*

A. Male branch. F. Female branch. *Fig.* 1. Male flower. *f.* 2. Do. corolla laid open. *f.* 3. Female flower. *f.* 4. Do. corolla laid open. *f.* 5. Stigma. *f.* 6. Transverse, and *f.* 7, vertical section of fruit:—all but *f.* 6 and 7, *magnified.*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TAB. DCCCII.

Hibiscus Scindicus, *Stocks.*

Suffrutex tortuosa humilis ramosissima subspinosa, pube stellata incana, foliis parvis cuneatis sessilibus apice crenato-serratis, stipulis subulatis, pedunculis solitariis brevissimis, involucelli foliolis 7–8 lanceolato-subulatis calycis 5-fidi dimidium æquantibus, petalorum unguibus spiraliter tortis, columna staminea inflata, antheris solummodo liberis, stylo longitudine staminum, capsula globosa 5-loculari, seminibus lanuginosis.

Hab. Hills of Scinde, *Dr. Stocks* (*n.* 480).

"*Suffrutex* Scindica depressa, *ramis* abruptis subspinosis, ramulis pube stellata tomentosa lepidotis. *Folia* omnia cuneata, parva, lepidotim stellato-pilosa. *Involucellum* 6–8-phyllum. *Calyx* 5-fidus, laciniis basi cohærentibus. *Corollæ petala* in tubum dextrorsum vel sinistrorsum tortum cum columna staminea connata, limbi segmentis tubo brevioribus. *Columna* staminea apice libera, antheras plurimas in globum confertas exserens. *Ovarium* 5-loculare. *Ovula* loculis 2. *Stylus* terminalis apice exserto, 5-fidus. *Stigmata* capitellata, papillosa. *Capsula* 5-locularis, 5-valvis. *Semina* in loculis 1–2; *testa* crustacea, pilis gossypinis lanuginosa." *J. E. S.*

Our valued friend Dr. Stocks considers that this singular plant will form a genus distinct from *Hibiscus*. The extensive genus so called, needs an entire revision; if this be separated, M. Planchon remarks, "there should go with it *Hibiscus micranthus* from Ceylon and the Peninsula of India, *Hibiscus*, sp. (S. Fischer, Coll. n. 92, from Arabia, and Aucher-Eloy, Coll. n. 428, *a*, from Muscat), *Hibiscus*, sp. (Aucher-Eloy, Coll. n. 855, from Sinai), and one from Senegambia (Heudelot, Coll. n. 535)—all in Herb. Hook. The present species differs from all those in its cuneate leaves."

Fig. 1. Leaf and stipules. *f.* 2. Involucel and flower. *f.* 3. Corolla. *f.* 4. Corolla laid open. *f.* 5. Capsule (*nat. size*). *f.* 6. Seed:—all but *f.* 5 more or less *magnified.*

Reeve & Nichols, imp.

TAB. DCCCIII.

Barleria Hochstetteri, *Nees.*

Fruticosa, ramis strigilloso-tomentosis apice trichotomis, ramulis trifidis trifloris v. unifloris bibracteatis, foliis ovalibus obtusis submucronatis strigillosis, bracteolis lanceolatis integerrimis, calycis laciniis majoribus ovalibus acutis æqualibus integerrimis glanduloso-pubescentibus, corollæ tubo mediocri. "*Nees in Kotschy, It. Nub. n.* 159 *et* 109 (119 *Hook.*) *in Hook. Herb.*"—*Nees in De Cand. Prodr. v.* 11. *p.* 231. *Wight, Ic. Pl. Ind. Or. v.* 4. *t.* 1528. B. diandra, *Hochst. et Steud. Herb. Æg. Ar. Un. Itin. n.* 919.

Hab. Arabia Felix, *S. Fischer, n.* 114 (*Herb. Hook.*). Cordofan, *Kotschy, in Herb. Hook. n.* 119. Hills in Scinde, *n.* 501, *J. E. Stocks* (*in Herb. nostr.*).

"Suffruticosa, diandra, glanduloso-pubescens; *foliis* lanceolato-oblongis obtusis, *pilis* simplicibus adpressis pubeque capitata erecta instructis, pagina inferiore lineolata; *petiolo* brevi; *pedunculo* axillari supra medium bibracteolato, *bracteis floriferis*, 3-floro vel sæpissime vacuis 1-floro; *calycis laciniis* intus glabris, extus pilis capitatis molliter pubescentibus, majoribus cordato-ovatis inæqualibus, superiore acuto, inferiore breviore et angustiore 2-costato bifido, interioribus lineari-lanceolatis acuminatis; *ovario* pubescente; *capsulæ* pubescentis rostratæ dispermæ *seminibus* sericeis."

A stunted-looking plant, on rocky ground spreading tuftwise. Flowers open at 10 A. M. Corolla one inch long, funnel-shaped: tube dirty-yellow; limb faint lilac, with the throat marked by reddish spots extending to the base of all the segments except the anterior one, which is separated somewhat from the rest by clefts extending deeper down, stands more erect, is rather shorter, and has the stamens and style adpressed to it. Rarely there are six segments to the limb of the corolla, in which case one of the staminodia (of which there are two lateral and one very much smaller and posterior) develops an anther. *J. E. S.*

Fig. 1. Portion of a plant:—*nat. size.* *f.* 2. Diagram of the arrangement of the parts of the flower. *f.* 3. Corolla laid open. *f.* 4. Pistil. *f.* 5. Transverse section of an ovary. *f.* 6. Flower-bud; calyx-segment removed. *f.* 7. Calyx enclosing the capsule. *f.* 8, 9. Capsules:—*magnified.*

Fitch del et lith.

Reeve & Nichols imp.

TAB. DCCCIV.

Sericostoma pauciflorum, *Stocks.*

Gen. Char. Sericostoma, *Stocks* (Boragineæ), *nov. gen.*—*Calyx* 5-partitus, sepalis basi subconnatis, duobus majoribus æstivatione externis. *Corolla* infundibuli-rotata, tubo sepalis breviore, limbi segmentis æstivatione imbricatis, anthesi planis, fauce lata pilis sericeis centrum versus radiantibus obstructa. *Stamina* ad sinus corollæ inserta: *filamenta* brevia; *antheræ* versatiles, demum exsertæ. *Ovarium* profunde 4-partitum, lobis a stylo distinctis. *Stigma* capitatum, subbilobum. *Nuces* 1–2 (uno vel duobus abortivis), ventre angulari liberæ, dorso convexo-granulatæ, apice acuminatæ, basi productæ, stipite laterali affixæ, stylo longiores, calyce clauso breviores. *Semen* erectum, *radicula* minima supera, *cotyledonibus* obovatis crassis.—Suffrutex *Scindica.* Caulis *basi decumbens, ligneus.* Ramuli *herbacei, pilis adpressis.* Folia *stricte sessilia, lineari-lanceolata.* Racemi *breves, oppositifolii, subscorpioidei,* 2–5-*flori,* bractea *terminali, floribus breviter pedicellatis uno remoto.* Corolla *alba, tenuissime membranacea, extus glabra,* fauce *filis tenuissimis crispo-sericeis dense obsita,* limbi segmentis *basi pilosissimis apice lacero-dentatis. Stocks.*

Sericostoma pauciflorum. *J. E. Stocks, in Wight Ic. Plant. Ind. Or. t.* 1377.

Hab. Hills of Scinde. *Dr. J. E. Stocks* (*n.* 473).

In this curious genus the faux of the corolla is completely closed by the meeting of the five dense silky masses, which suggested to Dr. Stocks the generic name. M. Planchon considers that *Lithospermum Kotschyi,* Boiss., is probably a congener of this, although the nucules in that are quite smooth.

Fig. 1. Side view of corolla. *f.* 2. View of the mouth of do. *f.* 3. Corolla laid open. *f.* 4. Pistil. *f.* 5. Fruit. *f.* 6. Seed:—*magnified.*

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TAB. DCCCV.

Cochlearia flava, *Buch.*

Annua glaberrima paniculatim ramosa, ramis omnibus racemiferis, foliis lanceolatis superne dilatatis pinnatifidis, laciniis sinuato-incisis, racemis elongatis multifloris, petalis calyce duplo brevioribus, siliculis globosis membranaceis, seminibus numerosis reniformi-globosis rugoso-punctatis, podospermis filiformibus elongatis.

Cochlearia flava, *Buch. Hort. Bengal. p.* 48. *Royle, Fl. Himal. p.* 72.—Alyssum cochlearioides, *Roth, Nov. Pl. Sp. p.* 322.—Cochlearia alyssoides, *De Cand. Prodr. v.* 1. *p.* 172.—Camelina Caisir, *Wall. Cat. n.* 802.

Hab. North-west provinces of India: Hurdwar, &c., *Buchanan, Royle*; near Kurnaul, Feb. 1843, Moradabad, March 1834, *Dr. Thos. Thomson.*

Radix annua, fusiformis. *Caulis* spithamæus ad pedalem et sesquipedalem, erectus, ramosus, *ramis* omnibus racemiferis. *Folia* omnia pinnatifida, glaberrima: *inferiora* seu *radicalia* 4–5 uncias longa, magis petiolata, laciniis inciso-sinuatis subpinnatifidis, segmentis omnibus acutis; *superiora* breviora, subspathulata, laciniis subintegerrimis. *Racemi* terminales elongati, fructiferi fere spithamæi. *Pedicelli* floris longitudine erecto-patentes. *Flores* parvi, ochroleuci. *Sepala* ovato-rotundata, concava, membranacea, glaberrima. *Petala* sepalis duplo breviora, oblongo-obovata. *Staminum filamenta* subæqualia, filiformi-subulata, simplicia; *antheræ* oblongæ. *Ovarium* globosum, glaberrimum, *stylo* perbrevi terminatum. *Stigma* obtusum. *Siliculæ* globosæ, sesquilineam longæ, membranaceæ, glabræ; valvis hemisphæricis. *Dissepimentum* fenestratum. *Semina* numerosa, ultra 20 in singulo loculo, reniformi-globosa, punctis elevatis rugosa, *funiculis* longissimis filiformibus.

A dubious *Cochlearia*, bordering on *Vesicaria*. Our drawing is made from the collection of Dr. Thomas Thomson, lately returned from his scientific mission to Western Himalaya and Thibet, whence, after joining Dr. Hooker in Eastern Himalaya, he is at this moment returned to Europe with his valuable collections, upon which it is to be hoped his well-known talents will be employed for the advantage of the scientific world.

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Capsule. *f.* 4. Capsule with one valve separated. *f.* 5. Seed with its podosperm:—*magnified.*

TAB. DCCCVI.

Lonicera (Xylosteon) Loureiri, *Bl.*

Scandens, tota fusco-pubescens pilosa, foliis elliptico-ovatis brevi-petiolatis breviter acuminatissimis basi subcordatis utrinque reticulatis, pedunculis bifloris axillaribus solitariis terminalibus dense capitatis, calycis limbo profunde 5-partito, laciniis late subulatis erectis.

Lonicera Loureiri, *Blume, Bijdr. p.* 653. *De Cand. Prodr. v.* 4. *p.* 334.

Lonicera Xylosteum, *Lour. Fl. Cochin. v.* 1. *p.* 186?

Var. β. *major*; foliis majoribus longioribus fere glabris, floribus majoribus.

Hab. Cochin-China, *Loureiro.* Java, on Mounts Gede and Tjerimai, *Blume, Thomas Lobb* (along with var. β).

This plant is (at least in our var. α) everywhere more or less pubescenti-villous, with brownish hairs, even the calyx and corolla, which latter appears, judging from the dried specimens, to be of a yellow or golden colour. The leaves are, moreover, closely and finely reticulated, on the upper side with sunken, and beneath with prominent, veins. Calyx-limb deeply 5-lobed, lobes erect, ovato-lanceolate.

Fig. 1. Flower :—*magnified.*

Reeve & Nichols imp

TAB. DCCCVII.

Lonicera (Xylosteon) diversifolia, *Wall.*

Vix volubilis, foliis ovatis acutis subacuminatisve subtus precipue villosis, pedunculis petiolo brevioribus, calycis limbo campanulato acute 5-dentato, corolla bilabiata extus pubescente basi hinc gibboso, ovario villoso.

Lonicera diversifolia, *Wall. in Roxb. Fl. Ind. v.* 2. *p.* 169. *Wall. Cat. n.* 477. *De Cand. Prodr. v.* 4. *p.* 334.

Var. β. *Royleana*; foliis ovalibus, pedunculis petioli longitudine. *De Cand. Prodr. p.* 334. L. Royleana, *Wall. Cat. n.* 478.

Hab. North-western India: Mountains of Gurwal, *Wallich*; Nynee Thal, *Dr. Thomas Thomson.* β. Kamaon and Sirmore, *Wallich.*

Our specimens from Dr. Thomson have the leaves broader and larger and more downy than those from Dr. Wallich, but not more different than is to be expected in a plant named "*diversifolia*" from the variable character of the leaves. Professor De Candolle justly compares it to the European *Xylosteum,* but it belongs to a different subsection, having the berries distinct. I do not see that *L. Royleana* deserves even to be considered a variety. All my specimens give the idea of an erect, not a scandent, shrub.

Fig. 1. Flower and bractea:—*magnified.*

Fitch del et lith

Reeve & Nichols, imp.

TAB. DCCCVIII.

Farsetia linearis, *Dcne.*

Tota pilis adpressis cana patenti-ramosa parce foliosa, ramis strictis rigidis subspinescentibus, foliis anguste linearibus, sepalis oblongo-lanceolatis ungues petalorum æquantibus, petalorum laminis obovatis, filamentis edentulis, siliqua erecta brevi-pedunculata oblongo-lineari (6 lineas longa) inæqualiter strangulata stylo lineam longo terminata, seminibus subuniserialibus 10–15 compressis lato-marginatis.

Farsetia linearis, *Boiss. Pl. Orient. in Annales des Sc. Nat. 2nd ser. t.* 17. *p.* 150. *Walp. Repert. Bot. v.* 1. *p.* 139.

Hab. Muscat, *Aucher-Eloy, Herbier d'Orient* (*n.* 4069). Near Lodianah, Seik country, *Dr. Thos. Thomson* (*n.* 8).

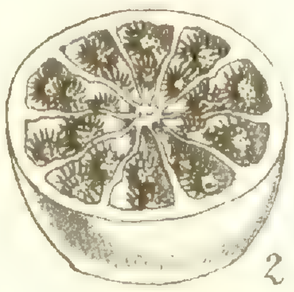
A rigid, subspinescent, very hoary plant. Our drawing is made from Dr. Thomson's specimens, which precisely accord with Aucher-Eloy's authentic ones in my Herbarium, and are so named by Decaisne. Habit of *F. Ægyptiaca,** as the author just mentioned well observes, but the smaller flowers, short peduncles, and above all the very narrow pods will at once distinguish it. Decaisne further notices its affinity with his *F. longisiliqua,* from Arabia, described, from very imperfect specimens, in the fourth volume of the 'Annales' above quoted, p. 69, when he speaks of the pods as 2 inches long and $1\frac{1}{2}$ lines broad. This latter plant is probably the same as *Matthiola stylosa,* Hochst. et Steud., found at Dschedda, *W. Schimper,* Herb. Arab. Un. Itin. p. 860, and of *S. Fischer,* Herb. Arab. n. 4; on one of my specimens of which, with entirely the habit of *F. linearis,* is a pod nearly 2 inches long. Another allied plant is what our valued correspondent Dr. Stocks has sent us from Scinde (Beluchistan) as "*Arabis heliophila*?" more herbaceous, however, not at all spinescent, and with pods $2\frac{1}{2}$ inches long: this Capt. Munro recognizes as *Cheiranthus Farsetia,* Herb. Ham. in Wall. Cat. 4801, *Farsetia Hamiltoniana,* Royle, and *Arabis incanescens,* Munro's 'Plants of Agra.'

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Stamens and pistil. *f.* 4. Ripe pod. *f.* 5. Seed:—*magnified.*

* *F. Ægyptiaca* has been detected in Affghanistan by Mr. Griffith.

1

3



2

Fitch del et lith.

Reeve & Nichols imp

TAB. DCCCIX., DCCCX.

Barclaya longifolia, *Wall.*

Gen. Char. *Calyx* 4–5-lobus, tubo elongato inferne cum ovario adnato. *Corolla* 4–5-petala, petalis oblongis inæqualibus, inferne cum tubo calycis unitis. *Stamina* subquinqueserialia, perianthii tubo inserta, in singula serie subdecem, serierum 2 superiorum sterilia, reliqua fertilia. *Antheræ* fere sessiles, oblongæ, biloculares, loculis longitudinaliter dehiscentibus. *Ovarium* inferum, oblongum, 10-loculare, pluriovulatum. *Stylus* conicus, brevissimus. *Stigma* depresso-umbilicatum, obscure radiatum, margine 10-laciniatum; laciniis subulatis, erecto-conniventibus. *Bacca* carnosa, globosa, matura calyce non coronata. *Semina* globosa, setis carnosis undique tecta.—Herba (*annua ?*) *aquatica Burmanica, acaulis.* Radix *fibrosa.* Folia *fere* Scolopendrii officinalis, *membranacea, longe petiolata, pennivenia.* Scapi *folio breviores, simplices, uniflori.* Flos *involucratus.* Involucri *persistentis* 5-*phylli* foliola *oblongo-lanceolata, ad basin floris verticillata, concava, patentia, uninervia, membranacea, extus infra apicem mucronata.*

Barclaya longifolia, *Wall.*

Barclaya longifolia, *Wall. in Linn. Trans. v.* 15. *p.* 443. *t.* 18. *Walp. Repert. v.* 1. *p.* 108.

Hab. Burman Empire, near Rangoon in Pegu, *Dr. Wallich,* August 1826. Mergui, *Griffiths* (*in Herb. nostr.*). Moulmein, *Thos. Lobb.*

There are few botanists, who, upon a casual inspection of this very rare plant, would suspect it to be Nymphæaceous; but much as the leaves may differ from that family, yet the flowers have a very close resemblance in structure to those of *Euryale.* We have really nothing to add to the full and admirable description of this plant by its discoverer, given in the volume of 'Linnæan Transactions' above quoted. We are disposed to consider the real calyx to be superior (no less than the corolla), as in the genus just mentioned. Hence the five exterior and inferior leaflets will be considered as an involucre, as in *Hepatica* among *Ranunculaceæ,* and *Podophyllum* in *Podophyllaceæ.*

Fig. 1. Flower, the perianth laid open, most of the involucral leaves removed. *f.* 2. Transverse section of an immature fruit. *f.* 3. Immature seed:—*magnified.*

2

TAB. DCCCXI.

Begonia verticillata, *Hook.*

Annua parva erecta, caule simplice glabro apice folioso, foliis sublonge petiolatis patentibus verticillatis cordato-ovatis acuminatis pilosulis inciso-lobatis vix inæquilateris, pedunculis terminalibus folio longioribus gracillimis dichotomo-paniculatis, ramis paucis bracteolatis, capsulis alato-triquetris, ala unica elongata oblique ovata.

Hab. Moulmein, *Thos. Lobb* (*n.* 382).

Root small, annual, tufted, fibrous. *Stem* 2–4 or 5 inches long, about as thick as a crow's quill, erect, reddish, glabrous, quite destitute of leaves except at the summit; these (from four to eight or ten, or even twelve) form a whorl on long (often longer than the blade) slender *petioles*, ovato-cordate, acuminate, membranaceous (when dry), $1\frac{1}{2}$ to nearly 2 inches long, inciso-lobate, scarcely inequilateral, glabrous, or with very scattered succulent minute hairs. *Peduncles* (two to four) terminal, from the centre of the whorl, very slender, capillary, longer than, and frequently twice as long as, the leaves, panicled above; the branches few, dichotomous, bracteolate: *bracteoles* obovato-rotundate, glandulously ciliate. *Flowers* small, apparently white: both male and female of four spreading *sepals*, two suborbicular, concave, two smaller, oblong. *Staminal column* with about eight rather large, oblong *anthers*. *Stigmas* bifid, the segments somewhat twisted. *Capsule* triquetrous; two angles with very indistinct wings, approximate, the third running out into a large, ovate wing, pointing a little upwards.

I can nowhere find any description of *Begonia* at all corresponding with this, which was detected by Mr. Thomas Lobb, while collecting for Messrs. Veitch, of Exeter.

Fig. 1. Male, and *f.* 2, female flower:—*magnified.*

Fitch del et lith.

Reeve & Nichols imp.

TAB. DCCCXII.

Epilobium macropus, *Hook.*

Glaberrimum, caule repente ramoso, ramis ad axillas radicantibus, foliis oppositis petiolatis ovato-ellipticis acutiusculis obsolete sinuato-dentatis, pedunculis axillaribus fructiferis valde elongatis, petalis (albis) profunde bifidis, stigmate clavato integro.

Hab. Running water, on sand: mountains, Wairau, near Nelson, southern island, New Zealand, *Mr. Bidwill* (*n.* 20).

A much-creeping and very radicant plant, varying from a few inches to a foot in length. Not one of Allan Cunningham's brief descriptions of species tallies with this, whose nearest affinity is perhaps with *E. alpinum* (itself, indeed, a very variable and widely dispersed plant):—but this is larger in all its parts, the leaves much broader, more decidedly petiolate, the stems and branches more rooting, flowers more numerous, not drooping in bud, and the most remarkable feature is the great elongation of the peduncle after flowering, sometimes to four inches in length.

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Stigma:—*magnified.*

Fitch, del et lith.

Reeve & Nichols imp.

TAB. DCCCXIII.

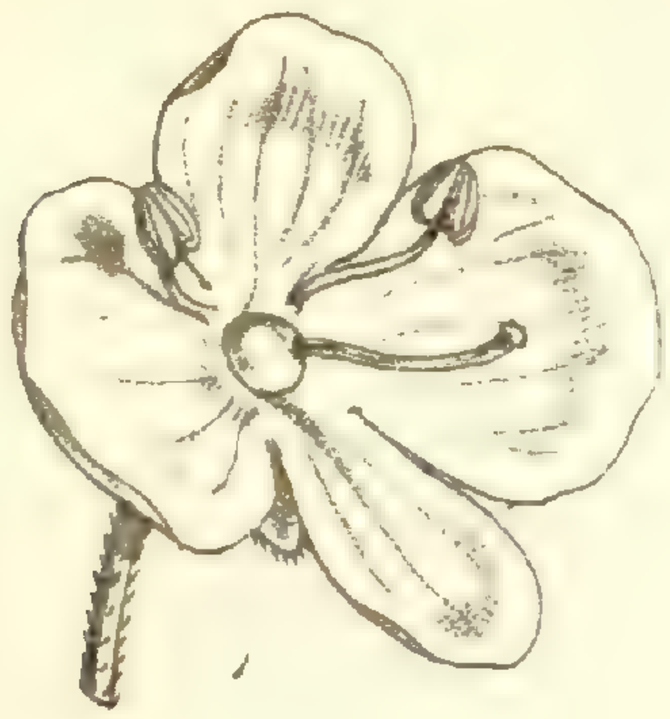
Epilobium melanocaulon, *Hook.*

Basi fruticosum fasciculatim ramosum, ramis elongatis erectis tetraquetris nigris angulis præcipue cano-puberulis, foliis oppositis approximatis numerosis subimbricatis superioribus alternis lanceolatis acutis sessilibus glaberrimis subramosis grosse dentatis costatis enervosis costis subtus nigricantibus, floribus ex axillis supremis, ovariis (capsulisque) linearibus triquetris glabris subsessilibus, petalis bifidis, stigmate globoso-clavato integro.

Hab. New Zealand; growing in dense tufts: sands in the bed of the Wairau, southern island, *Mr. Bidwill.* About Lake Taupo, south of the northern island, *Rev. W. Colenso.*

A well-marked species of a most troublesome genus. Mr. Colenso calls it a red-leaved species; when dry the leaves are reddish-brown, with a black costa on the underside: they appear, also, to be succulent when fresh, and they are very strongly toothed. The stem and branches are wiry, invariably black, slightly hoary, especially at the angles. *Flowers* small. *Pedunc-cles* much shorter than the leaves, indeed scarcely any. *Petals* rose-colour.

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Stigma:—*magnified.*



Fitch del et lith.

Reeve & Nichols, imp

TAB. DCCCXIV.

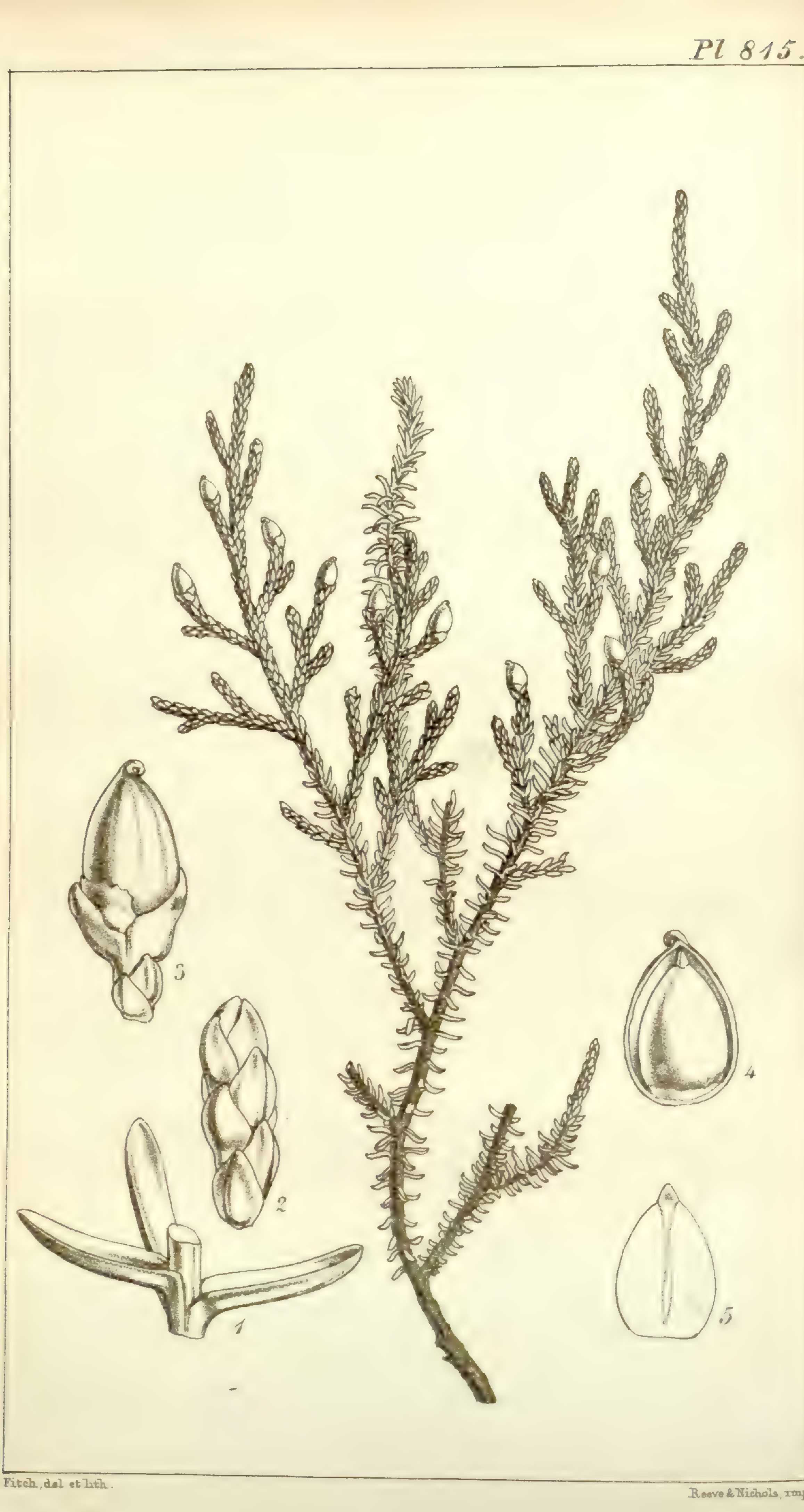
Veronica Bidwilli, *Hook.*

Suffruticosa repens ramosissima glabra, ramis bifariam pubescentibus, foliis approximatis parvis rotundatis coriaceis 3–5-crenato-lobatis rarius integerrimis in petiolum brevem attenuatis, pedunculis axillaribus elongatis, floribus racemosis, pedicellis flores æquantibus fructiferis elongatis, calycis segmentis ovato-lanceolatis, bracteis parvis linearibus, capsulisque (parvis) obcordato-ellipticis didymis pedicello multo brevioribus stylo persistente terminatis.

Hab. Bed of the River Wairau, New Zealand, about 2,250 feet above the level of the sea, *Mr. Bidwill* (*n.* 15).

Quite a new *Veronica*, from a country eminently rich in species of the genus. Its nearest affinity is *V. nivea*, Hook. fil., supra, t. 640; but that has much larger and much crenated leaves, procumbent, but not creeping stems, short peduncles, and those peduncles, bracteas, and the calyces densely glanduloso-hirsute. The flowers of *V. Bidwilli* are described by its discoverer as white, streaked with pinkish-lilac lines.

Fig. 1. Flower. *f.* 2. Fruit:—*magnified.*



Fitch, del et lith.

Reeve & Nichols, imp.

TAB. DCCCXV.

Dacrydium laxifolium, *Hook. fil.*

Humile fruticosum, ramis prostratis laxe ramosis gracilibus, foliis undique insertis sparsis laxe patentibus linearibus obtusis coriaceis supra canaliculatis supremis imbricatis ovatis brevioribus dorso carinatis, fructibus terminalibus solitariis erectis.

Dacrydium laxifolium. *Hook. fil. in Lond. Journ. Bot. v.* 4. *p.* 143 (*note*).

Hab. New Zealand, near the summit of Tongariro, northern island, *Mr. Bidwill* (*n.* 5 *and* 133); *Colenso* (*n.* 60).

Dr. Hooker, when describing this plant in the 'London Journal of Botany,' above quoted, from Mr. Bidwill's specimens, although expressing an opinion that it might possibly prove an alpine form of some known species, yet was more inclined to consider it truly distinct and new; and this view seems to be confirmed by Mr. Colenso having since communicated specimens which are quite unaltered from that described. The species seems wholly confined to the mountain Tongariro, where it forms a lax procumbent small shrub, not much unlike *Empetrum nigrum*.

Fig. 1. Lower leaves. *f.* 2. Upper do. *f.* 3. Fruit. *f.* 4. Section of a fruit. *f.* 5. Section of a seed:—*magnified.*

A

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4

5

B

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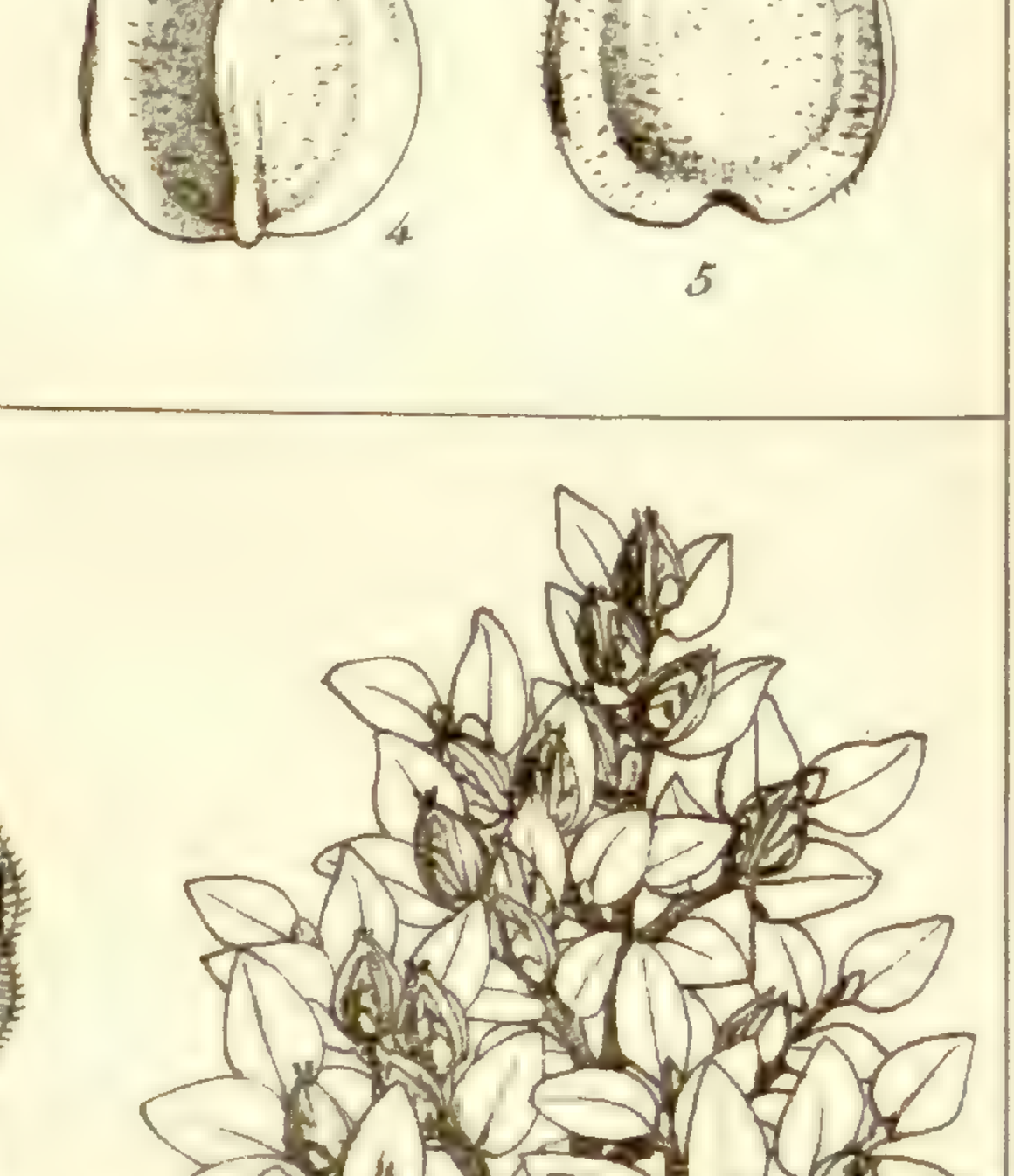

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Fitch del et lith.

Reeve & Nichols imp.

TAB. DCCCXVI.

A.

Fagus Solandri, *Hook. fil.*

(v. Tab. 639.)

The present figure (A), as well as the following (B), is given for the sake of representing the *fruit*, which was unknown to us when we gave our representation of the male plant at Tab. 639 of this work. Mr. Colenso has sent us fruiting specimens from the banks of the Makaroro, Port Nicholson, &c. The cupule consists of from seven to nine ovate, acute, unequal, downy scales, united by their bases, which enclose two or three triquetrous, downy nuts, the angles winged.

Fig. 1. Fruiting branch:—*natural size.* *f.* 2. Ripe fruit. *f.* 3. Cupule; the nuts being removed. *f.* 3, 4. Back and front view of nuts:—*magnified.*

B.

Fagus cliffortioides, *Hook. fil.*

(v. Tab. 673.)

The fruit of this, also sent by Mr. Colenso, differs but little from that of *F. Solandri*; it is more oblong, and the scales are more acute. The nuts are rather irregularly ovate than cordate, triquetrous, less winged.

Fig. 1. Fruiting branch:—*natural size.* *f.* 2. Fruit. *f.* 3. Cupule. *f.* 4, 5. Front and back view of a fruit:—*magnified.*

Fitch del et lith.

Reeve & Nichols imp

TAB. DCCCXVII.

Chrysobactron Hookeri, *Colenso.*

Foliis lineari-ligulatis acuminatis, racemis laxifloris, ovario obovato, capsula basi in stipitem attenuata.

Chrysobactron Hookeri, *Col. in litt.*

Hab. New Zealand. In great abundance in the richer parts of the alluvial plain of the upper part of the Wairau, *Mr. Bidwill, n.* 83. Sides of watercourses, country between Ruahine Range and Taupo, plentiful, *Rev. W. Colenso, n.* 982 and *n.* 1850.

My first acquaintance with this plant was through my valued friend Mr. Bidwill, who sent it as a new *Chrysobactron*, Hook. fil., but without flowers, as here represented, and with the following remarks:—"*Root* with very large fleshy fibres; *bulb* very small. *Leaves* eighteen inches long, yellowish-green, deciduous. *Scape* two feet to thirty inches high. It grows in great clumps in boggy places, and is said to cover the plain with a sheet of yellow when in bloom. Some of the masses are three feet in diameter. Yellow flowers seem very scarce in New Zealand." In the following year I received specimens from the Rev. W. Colenso, and in flower (as well as fruit), when it was too late to introduce the flowers into the plate. "Another prize," exclaims Mr. Colenso in his letter, "which I believe to be a new *Chrysobactron*! and therefore venture to name it *C. Hookeri*, in honour of my good friend and your dear son. I could not procure any good specimens, as all—everywhere—had been scorched up with fires, extending many miles. I have it, however, flourishing in my garden."—Whether in fruit or in flower the species shows itself to be very distinct from *C. Rossii*.*—At this moment (June 20, 1851) plants of *C. Hookeri*, sent by Mr. Colenso, are flowering in the Royal Gardens, and a coloured figure in that state will be given in the Botanical Magazine.

Fig. 1. Fruit, with (as is often the case) the persistent perianth and filaments of the stamens. *f.* 2. Transverse section of do. *f.* 3. Seed. *f.* 4. Transverse section of do. *f.* 5. Embryo:—*magnified.*

* The latter may be thus defined:—*C. Rossii*, Hook. fil.; foliis lato-ligulatis, racemis densifloris, ovario basi latiore sessili, fructu conico-ovato. *Hab.* Auckland Island, *J. D. Hooker.*

Fitch del et lith.

Reeve & Nichols, imp.

TAB. DCCCXVIII.

Wahlenbergia albomarginata, *Hook.*

Annua, radice 1–3-cipite, foliis radicalibus rosulatis spathulatis in petiolum planum ciliatum longe attenuatis superne plerumque hirsutis integerrimis v. crenato-serratis margine incrassato albo, scapo solitario (spithamæo) inferne subunibracteato tereti unifloro, flore erecto, calycis tubo turbinato 10-striato lobis subulato-lanceolatis æquilongis, corolla campanulata calycem triplo superante, capsula calycis lobis coronata oblongo-turbinata nitida 3-loculari apice 3-valvi, valvis minutis.

Hab. Mountains at the head of the Wairau valley, near Nelson, elev. 2,000 to 5,000 feet, New Zealand; flower blue. *Mr. Bidwill.*

No species like this has anywhere been described: a very nearly allied one, however, will be published by Dr. Hooker in his forthcoming Flora of New Zealand, but having angular scapes almost invariably and entirely leafless, with the radical leaves everywhere quite glabrous, scarcely, if at all, thickened at the margin, and the margin never white.

Fig. 1. Flowering, and *f.* 2 fruiting specimen:—*nat. size. f.* 3. Leaf:—*magnified.*

Fitch del. et lith.

Reeve & Nichols imp

TAB. DCCCXIX.

Apium filiforme, *A. Rich.*; β. trifidum, *Hook.*

Parvum omnino prostratum, radice fusiformi, caulibus filiformibus, foliis ternatim vel radicalibus præcipue quinato- (et tunc pinnatim) -sectis sublonge petiolatis, pinnis rotundato-cuneatis trifidis sæpius incisis, umbellis lateralibus paucifloris, fructu orbiculari compresso, mericarpiis 5-costatis, costis latiusculis semiteretibus elevatis lævibus.

α. foliolorum lobis sæpissime incisis.

Petroselinum filiforme. *A. Rich. Voy. de l'Astrolabe, Bot. v.* 1. *p.* 278. *All. Cunn. Fl. Nov. Zel. in Ann. Nat. Hist. v.* 2. *p.* 212. *Raoul, Choix de Pl. de la Nouv. Zél. p.* 46.

β. caulibus minus gracilibus, foliolorum lobis integerrimis. Tab. Nostr. 819.

Hab. Near Nelson, New Zealand, *Mr. Bidwill* (*n.* 94 A).

This will undoubtedly rank near to the Australian *Petroselinum prostratum*, De Cand., which La Billardière had more correctly placed with *Apium*. Indeed Dr. Hooker, in his 'Flora Antarctica,' has united the latter plant with the *Apium graveolens*, into which it does seem to pass by insensible gradations. It is possible, indeed, that *Petros. filiforme* may prove a link to unite our present plant with *A. prostratum*: in other words, that our plant now figured may be an extreme variety of *A. graveolens*. The root is fusiform. The umbels are on short peduncles, not sessile as described by A. Richard, nor are they so in what we take to be the true *filiforme* gathered in New Zealand in various localities (his *n.* 89, 230, 2047 for example) by Mr. Colenso.

At our Vol. IV. Tab. 305 we have figured a remarkable form of *Petroselinum* (*Apium*) *prostratum*, with unusually long and narrow segments to the leaves.

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Fruit. *f.* 4. Transverse section of do.:—*magnified.*

Fitch del et lith.

Reeve & Nichols imp

TAB. DCCCXX.

Gymnogramme aureo-nitens, *Hook.*

Scandens? tota aureo-sericea tomentosa nitens bipinnata flexuosa, pinnis sublonge petiolatis deltoideo-lanceolatis apice pinnatifidis, pinnulis alternis crasso-coriaceis sessilibus oblongo-deltoideis obtusissimis profunde pinnatifidis apice integris, lobis rotundatis obtusis crenato-dentatis, soris sæpe furcatis, rachibus crassis.

Hab. Andes of Peru, *Mr. Wm. Lobb.*

A very remarkable and beautiful Fern, in some respects according with Kunze's description of *G. ferruginea*, in Linnæa, v. 9. p. 34, but that species is said to have the "frond pinnatopinnatifid, pinnatifid at the apex," characters which accord with the pinnæ or primary divisions of this species, but by no means portraying the character of our present plant; and "laciniis subtus ferrugineo-tomentosis," while our species is everywhere and uniformly clothed with the same aureo-nitent silky tomentum. The fructifications are only visible on removing the tomentum, when the forked nerves will be found to bear the sori, which are simple or more frequently forked.

Fig. 1. Lower lobe of a pinnule seen from the underside, the woolly covering having been removed:—*magnified.*

Fitch del et lith.

Ecm. Nichols imp

TAB. DCCCXXI., DCCCXXII.

Physorhynchus Brahuicus, *Hook.*

Gen. Char. Physorhynchus, *Hook.* *Sepala* erecta, basi subæqualia. *Petala* longe unguiculata, laminis ellipticis. *Staminum filamenta* libera, edentula. *Ovarium* biloculare, longe crasse rostratum; *loculis* in rostro continuis, et ibi seminiferis. *Stylus*, seu ovarii pars superior, columnaris, in rostro maxime accrescente spongioso seminifero continuus, loculis demum rostri incremento pseudo-4-locularis, inferioribus veris nanis, superioribus biovulatis, funiculis magis minusve elongatis. *Stigma* capitatum, bilobum. *Fructus maturus* (rostro magno ovato-acuminato persistente) ampullæformis, subcoriaceus, inferne bivalvis, *valvis* oppositis minutissimis deciduis: loculis inferioribus obsoletis vacuis, superioribus (in rostro) singulo dispermo. *Semina* subtriangulari-globosa, punctulata. *Cotyledones* plano-hemisphericæ, conduplicatæ; *radicula* oblique accumbente.—Planta *Scindica, biennis, bi-tripedalis, glauca, basi suffruticosa, superne paniculata.* Folia *obovata, in petiolum attenuata, superiora sensim minora, sessilia, oblongo-lanceolata, basi semiamplexicaulia, biauriculata.* Racemi *elongati, fructiferi divaricatissimi.*

Physorhynchus Brahuicus.

Hab. Brahuic Hills of Scinde, *Dr. J. E. Stocks.* Affghanistan, *Griffith* (*n.* 1550).

This highly curious plant was sent with many excellent remarks by Dr. Stocks, as a genus "distinct from *Didesmus*," to which its fruit seems at first sight to be allied. Dr. Planchon has in my Herbarium pointed out its real affinity with *Fortuynia*, Shuttlew., wanting, however, the remarkable wings to the fruit. The structure of the fruit here is, indeed, very remarkable; the greater proportion being occupied by what Dr. Stocks, I think justly, considers a beak. "The young ovary (*f.* 5.) has usually four seeds and on each side of the dissepiments two chambers" (pseudo-loculi) "one above the other, separated by a slight constriction. The lower ones are the true carpellary cavities, the upper are hollowed out of the rostrum. The latter generally have all 4 ovules in them, one often hanging down into the carpellary cavity (apparently never ripening there). This lower portion of the fruit does not increase in size like the beak, as the seeds advance to maturity; but forms a short stipes to the flask-shaped beak, still more diminished in size when the valves fall away (f. 6, 7, 8, 9). The lower leaves are thick and fleshy, and when eaten like the garden cabbage are really excellent." *Stocks.*

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Stamens and pistil. *f.* 4. Pistil. *f.* 5. Section of pistil. *f.* 6. Ripe fruit. *f.* 7. Vertical section of immature fruit. *f.* 8. Transverse section of do. *f.* 9. A valve from the ripe fruit. *f.* 10. Vertical section of ripe fruit. *f.* 11. Seed. *f.* 12. Embryo:—*magnified.*

Fitch del et lith.

Reeve & Nichols, imp.

TAB. DCCCXXIII.

Rhabdia viminea, *Wall.*

Foliis glabris oblongo-cuneatis basi in petiolum perbrevem attenuatis, floribus paucis in ramos parvos proprios terminalibus.

Rhabdia viminea, *Dalzell, MSS. in Herb. Nostr.*

Ehretia viminea, *Wall. Cat. n.* 906. *De Cand. Prodr. p.* 509.*

Ehretia cuneata, *Wight, Ic. Plant. Ind. Or. v.* 4. *t.* 1385.

Hab. East Indies; Attran, a river of Martaban, *Dr. Wallich.* Pundua, *De Sylva.* Moulmein, *Thomas Lobb, n.* 342. Banks of Cavery river, Madras Peninsula, *Dr. Wight.* Banks of rivers in the Concan, *N. A. Dalzell, Esq.*

Frutex humilis, facie *Lycii,* 1–2-pedalis et ultra, valde ramosa, ramis sæpe elongatis vimineis, cortice fusco tectis. *Folia* copiosa, alterna, cuneato-oblonga, vix unciam longa, obtusissima, integerrima, glabra (juniora pubescentia), chartaceo-membranacea, basi in *petiolum* perbrevem attenuata. *Flores* 2–3, subcorymbosi, ad apicem ramorum brevium propriorum. *Calyx* 5-sepalus, sepalis lanceolatis pubescentibus corollæ duplo brevioribus. *Corolla* subrotata, *tubo* brevi, *limbo* patente 5-lobo, *lobis* ovalibus, ore nudo. *Staminum filamenta* corollæ versus medium affixa, exserta, nuda. *Antheræ* ovatæ, introrsæ. *Ovarium* ovato-subglobosum, biloculare, 4-ovulatum. *Stylus* filiformis, omnino simplex. *Stigma* obscure bilobum. *Fructus*: *bacca* subsicca 4-pyrena. *Semina* suspensa, albuminosa. *Embryonis radicula* supera.

My valued correspondent N. A. Dalzell, Esq., has, in my opinion, rightly referred this plant to *Rhabdia,* and sent me specimens under that name, from which our figure is made. It is identical with *Ehretia viminea* of Wallich, of which I possess authentic specimens from Martaban and Moulmein, and which no otherwise differ than in their more slender and more twiggy habit and smaller leaves. The plant wants the bifid style of *Ehretia,* and in every respect seems to agree with the Brazilian genus of the same name, founded by Dr. Martius. Mr. Dalzell notices its habit as that of a *Lycium,* and the name of the South American species (*R. lycioides*) is derived from its resemblance to that shrub.

Fig. 1. Flower. *f.* 2. The same more expanded. *f.* 3. Corolla laid open. *f.* 4. Pistil. *f.* 5. Transverse section of ovary. *f.* 6. Fruit. *f.* 8. Seed. *f.* 9. Embryo:—*magnified.*

* De Candolle considers this a doubtful *Ehretia,* and constitutes for it a section (*Xeroderma*) which in fact corresponds with Von Martius's *Rhabdia.*

TAB. DCCCXXIV.

Randia speciosa, *Hook.*

Fruticosa glaberrima, foliis petiolatis coriaceis ellipticis obovatisve obtuse apiculatis nitidis (junioribus vernicosis) pinnatim venosis venis patentibus approximatis subtus prominentibus transversim copiose venulosis, floribus terminalibus solitariis sessilibus, calyce cylindraceo-campanulato ore truncato, corollæ (inter maximas) tubo elongato cylindraceo gracili limbi 8-partiti lobis ovato-oblongis obliquis patentissimis, staminibus 8, stigmate clavato-capitato sulcato.

Hab. Singapore, *Thomas Lobb* (*n.* 483).

It is a pity this fine plant has not yet been introduced to our stoves. I have seen only the specimens which have been sent home by Mr. Lobb to Mr. Veitch, and this species I can nowhere find described. It would seem to exude a good deal of resinous matter, especially the young branches. The flower is peculiarly large, not only long in the tube, but full four inches in the diameter of the limb. This limb is divided to the base into eight lobes (and there are as many stamens). The calyx is large, and between campanulate and cylindrical, quite entire at the mouth. The very base only is united to the ovary. *G. enneandra* of Dr. Wight, Ic. Pl. Ind. Or. v. 2. t. 574, has a flower somewhat resembling this, but the tube is shorter, the limb has nine segments and stamens, the calyx is toothed, and the foliage is widely different and nearly sessile.

Fitch del. et lith.

Reeve & Nichols imp.

TAB. DCCCXXV.

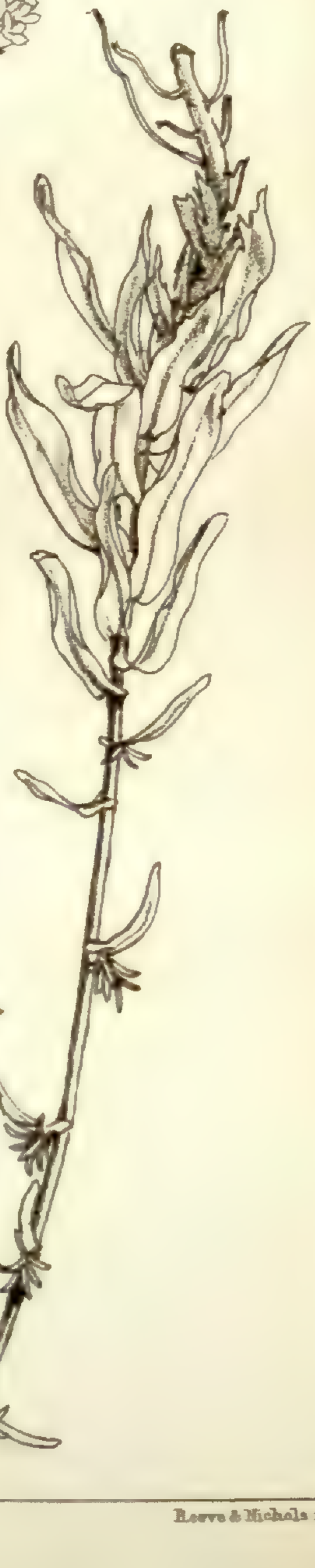
Myrsine Myrtillus, *Hook.*

Ramis puberulis, foliis bifariis brevissime petiolatis ovatis acutis obsoletissime serratis coriaceo-membranaceis subtus punctatis, umbellis axillaribus folio duplo brevioribus, floribus puberulis dioicis lineatim nigro-punctatis, corolla rotata, staminibus longitudine laciniarum.

Hab. Luçon, *Thomas Lobb* (*n.* 478).

A small shrub with slender straggling branches and dark brown obscurely pubescent bark. Leaves bifarious, a good deal resembling those of *Vaccinium Myrtillus*, dotted beneath when seen under a lens. Flowers very small, apparently dioicous: ours having only an abortive pistil. Calyx 4-lobed, downy: lobes acute, with black oblong dots or glands. Corolla with black oblong streaks. Filaments inserted at a little distance from the base of each lobe of the corolla. Anthers large for the size of the flower, ovate. Ovary globose. Style a little longer than the ovary: stigma 4-cleft.—Its nearest affinity is with Wallich's *M. bifaria*: but the two are very different.

Fig. 1. Flower. *f.* 2. The same more expanded. *f.* 3. Abortive pistil:—*magnified.*



Fitch del et lith.

Reeve & Nichols imp.

TAB. DCCCXXVI.

Ameletia floribunda, *Wight.*

Annua erecta glaberrima superne ramosa, foliis alternis linearibus superioribus præcipue basi cordato-semiamplexicaulibus, pedunculis gracillimis in ramos terminalibus, racemis spicatis bracteatis subrotundato-ovalibus, bracteolis fere longitudine calycis, floribus monoicis, petalis (roseis) calycis tubum æquantibus, staminibus longe exsertis.

Ameletia floribunda, *Wight, Illustr. Ind. Bot. p.* 206 (*excl. reference to the figure*).

Nimmonia floribunda, *Wight, Madras Journ. of Science, v.* 6. *p.* 34. *t.* 20.

Hab. A rare plant on hills (apparently in watery places), Mahabushwur, Bombay, *Nimmo, Dalzell.*

A small but most lovely little plant, and, though rare, growing in such dense masses as to present a beautiful appearance with the copious heads of delicate pink-coloured flowers. Dr. Wight first described it as a new genus, *Nimmonia*, but afterwards properly referred it to *Ameletia*, unquestionably its proper place: and it is nearly allied to *A. tenuis*, but that has opposite branches, opposite cordate leaves, long tapering spikes, and small (apparently white) flowers, the petals scarcely longer than the teeth of the calyx—as shown in Dr. Wight's Icones Plant. Ind. Or. t. 257 B. In describing the four species of *Ameletia* in the 'Illustrations of Indian Botany,' the figures, by some mistake of the printer, are transposed or incorrectly quoted. Under *A. Indica* (vol. i. p. 206) should have been quoted "Icon. Pl. Ind. Or. tab. 257 A." Under *A. tenuis*, "tab. 258" should be "tab. 257 B." Under *A. floribunda*, the reference to Ic. Plant. should be wholly omitted, for this species is neither figured nor described there. Under *A. rotundifolia*, "tab. 259" should be "tab. 258."

Fig. 1. Male flower. *f.* 2. The same laid open. *f.* 3. Female flower laid open. *f.* 4. Transverse section of an ovary:—*magnified.*

1.

2.

3.

Fitch del et lith.

Reeve & Nichols, imp.

TAB. DCCCXXVII.

Mitreola oldenlandioides, *Wall.*

Subsimplex, caule subquadrangulo ramisque glabris, foliis ovatis oblongisve acutis v. obtusis basi in petiolum attenuatis margine scabris, bracteis lobisque calycinis lanceolatis margine scabro-pilosis, corollæ laciniis parvis, capsulæ lobis recte divergentibus, seminibus elongato-compressis.

Mitreola oldenlandioides, *Wall. Cat. n.* 4350. *Alph. De Cand. Prodr. v.* 9. *p.* 9.

Hab. East Indies; Sukanaghur, *Hamilton.* Under bushes in the rainy seasons, Bombay, but not very common, *N. A. Dalzell, Esq.*

A very distinct species from *paniculata* (our next figure), very slightly branched, with broader, delicate, and more membranaceous leaves, each plant bearing from two to four small panicles with spreading branches, and a very different fruit.

Fig. 1. Flower. *f.* 2. Capsule. *f.* 3. Capsule laid open :— *magnified.*

3.

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5.

1.

2.

Fitch del et lith.

Reeve & Nichols imp.

TAB. DCCCXXVIII.

Mitreola paniculata, *Wall.*

Caule subquadrangulo glabro, ramis scabro-pilosiusculis, foliis ovali-oblongis acuminatis in petiolum angustatis margine nervisque scabro-pilosis, bracteis lobisque calycis lanceolatis margine dorsoque tenuiter pilosiusculis, corollæ laciniis lanceolatis elongatis, capsula lunata lobis inflexis, seminibus elongato-compressis. *A. De Cand.*

M. paniculata, *Wall. Cat. n.* 4349 (*not n.* 1826), *fide A. De Cand. in Prodr. v.* 9. *p.* 9. *G. Don, Gard. Dict. v.* 4. *p.* 171 (*excl. Syn. M. oldenlandioides*).

Hab. Prome, Ava, and Tong-Dong, in the Birman Empire, *Wallich.* In a Mandiocca plantation, near Arroyas, Goyaz, Brazil, *Gardner* (*n.* 3897).

I do not possess any oriental specimen of this plant: but Alph. De Candolle, who has in his herbarium specimens of that and of Gardner's Brazilian plant, has not the smallest hesitation in considering them the same. "Exemplum," he adds, "rarissimum speciei in Asia et Brasilia simul crescentis, sed diversitatem minimam frustra quæsivi." The very panicled inflorescence and the decidedly inflexed and almost connivent lobes of the fruit readily distinguish this species.

Fig. 1. Flower. *f.* 2. Flower laid open. *f.* 3. Capsule. *f.* 4. Capsule laid open. *f.* 5. Seed:—*magnified.*

TAB. DCCCXXIX.

Crotalaria Cunninghamii, *Br.*

Frutex erectus, foliis unifoliolatis ovalibus mucronulatis utrinque ramulis calycibusque pube sericea ferruginea velutinis, petiolis infra apicem geniculatis, stipulis subulatis, floribus (magnis) nunc axillaribus solitariis plerumque terminalibus racemosis, pedicellis infra medium bibracteolatis, petalis lineatis, vexillo carina elongata stricta breviore, leguminibus teretibus sericeo-tomentosis rostratis.

Crotalaria Cunninghamii, *Br. in Bot. App. to Sturt's Exped. into Central Australia, p.* 71.

Kennedia chlorantha, *All. Cunn. in Herb. Nostr.*

Hab. North-west coast of Australia (barren shores of Goodenough Bay, S.E. of Cygnet Bay, *All. Cunningham*), *Bynoe* (in Stoke's Voy. of the Beagle).

In many respects this accords with Mr. Brown's description of *Crot. Sturtii*, in Sturt's Exped. pl. c. p. 70 (I may say entirely with the specific character); but the leaves and flowers are larger and the carina is always shorter than the vexillum. That distinguished botanist then in his "Obs." notices a very nearly related species found on the N.W. coast in 1818, by Mr. Cunningham and by the officers of the 'Beagle,' "*C. Cunninghamii*; tomentosa, foliis simplicibus ovali-obovatis utrinque sericeo-tomentosis, petiolis apice curvatis, pedunculis axillaribus unifloris." We have specimens from that locality gathered on both these occasions, and our figure is made from those of Mr. Cunningham: there can be little doubt, therefore, that the plant here figured is Mr. Brown's *C. Cunninghamii*: but although some of our specimens do show axillary and single-flowered peduncles, others have truly terminal racemose flowers, though partially leafy; so that the differences between this and *C. Sturtii* are confined to the trifling ones just mentioned. The species is remarkable for the large size of the flowers, the short alæ, and the very lengthened and straight acumen to the carina. All the petals are striated with dark lines.

Fitch, lith.

Reeve & Nichols, imp.

TAB. DCCCXXX.

Crotalaria crassipes, *Hook.*

Glabra, ramis herbaceis alato-angulatis, foliis unifoliolatis oblongis mucronulatis inferne attenuatis, petiolis apice geniculatis stipuliferis basi utrinque alato-decurrentibus, bracteis subulatis, racemis terminalibus axillaribusque elongatis multifloris, pedunculo incrassato, bracteis parvis subulatis, calyce late campanulato profunde 5-fido laciniis lato-subulatis, carina vexillum rotundatum obtusum æquante.

Hab. North-west coast of Australia, *Bynoe* (Voyage of the Beagle).

A most distinct and well-marked species. Mr. Bentham observes to me of this and the one given in our preceding plate (Tab. 829), that "they have the leaf articulated at the top of the petiole and thus unifoliolate, like my Brazilian *C. unifoliolata*, whilst the great mass of simple-leaved *Crotalariæ* have the leaf sessile or narrowed into a very short petiole without articulation."

Another of this kind I find in Mr. Bynoe's collection defined below.*

* *C. oblongifolia*; ramis suffruticosis striatis pubescentibus, foliis unifoliolatis oblongis obtusis inferne paululum attenuatis, petiolis infra apicem geniculatis supra glabris subtus dense fusco-sericeo-velutinis, stipulis valde deciduis, racemis terminalibus axillaribusque subincrassatis multifloris, bracteis parvis subulatis, calycibus campanulatis sericeis 5-fidis laciniis subulato-triquetris, carina vexillum subrotundum obtusum æquante.

Hab. N.W. Coast of Australia, *Bynoe* (Voy. of the Beagle).

Habit of *C. crassipes*, but specifically very distinct. The petioles are in no way decurrent, and the stipules are very caducous (all fallen on our flowering specimens), and every part of the plant, save the corolla and upper side of the leaf, clothed with rufo-fuscous silky down.

Fitch lith.

Reeve & Nichols, imp.

TAB. DCCCXXXI.

JASMINUM LINEARE, *Br.*

Subvolubile pubescens vel glabrum, foliis trifoliolatis, foliolis linearibus seu lineari-oblongis, floribus cymoso-paniculatis axillaribus, paniculis folio triplo brevioribus.

Jasminum lineare, *Br. Prodr. p.* 521. *De Cand. Prodr. v.* 8. *p.* 311.

HAB. South Australia, *R. Brown, Esq.* Bushy country about Lachlan River. Subtropical interior of New Holland, *Major Mitchell.*

This pretty and fragrant Jasmine has probably an extensive range in New Holland. Our drawing was taken from Major Mitchell's beautiful specimens, aided by recent flowering ones, for the species has been introduced to the Royal Gardens. The flowers are small, white, numerous, and delicately fragrant.

Fig. 1. Flower. *f.* 2. Pistil :—*magnified.*

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TAB. DCCCXXXII.

Logania (§ Stomandra) campanulata, *Br.*

Herbacea, foliis linearibus exstipulatis, floribus terminalibus, pedunculis calycibusque pubescentibus. *Br.*
Logania campanulata, *Br. Prodr. p.* 456. *De Cand. Prodr. v.* 9. *p.* 26. L. hyssopoides, *N. ab Esenb. Pl. Preiss. v.* 1. *p.* 368.
Hab. New Holland, south coast, *R. Brown, Esq.* King George's Sound, *Drummond.*

A stiff, wiry-looking, erect, simple, slender plant. Stems several, 1 foot to 1½ foot high, arising from a fusiform woody root, and bearing several rather distant pairs of opposite, erect, rigid leaves. These leaves are narrow-lanceolate rather than linear, an inch or more long, one-nerved, the margin revolute, glabrous. Stipules clearly none, as Mr. Brown states:—yet Nees von Esenbeck, in 'Plantæ Preissianæ,' has a *Logania hyssopoides*, from the same locality as our plant (King George's Sound) which he says only differs from Mr. Brown's *L. campanulata* in the "stipulæ sat evidentes," and these stipules are, he adds, "intrapetiolares truncatæ." Even in our plant, the sheath of the leaves is thickened between the leaves and truncated, analogous to what Mr. Brown describes in another species, "stipulæ intrapetiolares truncatæ." The probability is, our two plants are the same. The leaves become gradually smaller and more distant upwards, and take the place of bracteas, at the branching of the peduncles. The inflorescence is downy, more or less divided dichotomously, in the more perfectly branched stalks having a solitary flower in the fork. Calyx of 5, lanceolate, acuminated, downy lobes. Corolla slightly downy: tube campanulate, scarcely longer than the sepals; limb of 5 rounded spreading lobes. Filaments short, inserted at the mouth of the corolla. Anthers linear. Ovary ovate, glabrous. Style 1, short, hairy. Stigma subclavate or approaching to fusiform.

Fig. 1. Flower. *f.* 2. Calyx, including the pistil. *f.* 3. Stamens. *f.* 4. Pistil:—*magnified.*

2
1

TAB. DCCCXXXIII.

Polygonatum graminifolium, *Hook.*

Humilis, caule basi vaginato apice folioso, foliis arcte approximatis linearibus obtusiusculis glabris strictis erecto-patentibus inferioribus alternis reliquis oppositis, pedunculis axillaribus bifidis bifloris subnutantibus folio duplo triplove brevioribus, perianthio (fusco-purpureo) infundibuliformi, limbi lobis ovatis obtusis, antheris subsessilibus, ovario elliptico longitudine styli, stigmate 3-fido.

Hab. Barung, Western Himalaya, elev. 11,000 feet. June, 1844. *Capt. Munro.*

A most graceful little species of "Solomon's seal," with narrow, linear, obtuse, erecto-patent leaves, and dark, dingy purple flowers (according to Capt. Munro's figure). Its root is a horizontal, elongated, knotted tuber, bearing a small, erect, slender stem, scarcely a span high including the leaves; the lower portion of the stem is jointed, and the upper joint has a long, ligulate, membranaceous sheath. Leaves all from the upper part of the stem; the lower ones alternate, the rest opposite. In this particular, as well as in the nature of its leaves, this species will not agree with any of the 23 recently described in the 5th vol. of the 'Enumeratio Plantarum' of the late Professor Kunth; nor will it enter into any of his three divisions, 1. Folia sparsa; 2. Folia opposita; 3. Folia verticillata. Capt. Munro was disposed to consider it identical with the *P. geminiflorum*, Dcne. in Jacquemont Voy. vol. iv. p. 170. t. 170, but that has distant, oblong leaves, extremely unlike those of this plant, and white flowers. It has no cirrhi like the narrow leaves of the verticillate species of the genus.

Fig. 1. Flower. *f.* 2. The same laid open :—*magnified.*

TAB. DCCCXXXIV.

Lloydia longiscapa, *Hook.*

Scapo parce bracteato subbifloro foliis linearibus erectis strictis duplo longiore, sepalis anguste ovatis disco basin versus maculam fuscam depressam nectariferam notatis, filamentis hirsutis, stylo ovarium longitudine superante.

Hab. Changseel, Western Himalaya, in fissures of rocks among snow, elev. 13,000 feet. June, 1844. *Capt. Munro.*

I offer this as a new species of *Lloydia* with considerable hesitation. It has many points in common with the European *Ll. serotina* (*Anthericum serotinum,* L.); some of our numerous specimens of the latter having two flowers on a scape; and, in some, the leaves are as short in proportion as in the present plant: but here the sepals are broader, the filaments are distinctly hairy, and I see no appearance of the transverse nectariferous plica described to exist in the sepals of *Ll. serotina,* but only a large, depressed, brown spot. Dr. Royle's *Ll. Himalayensis* seems to have the scape constantly single-flowered, not longer than the leaves; the sepals are described as spathulate, and the leaves are sheathed below with large brown membranaceous scales. *Ll. Kunawurensis,* Royle, has copious, small, white, cymose flowers. *Ll. græca* has several white flowers on a scape, with green lines on the sepals, a long ovary, and peculiarly short style. According to Kunth, for the statement is not in the 'Flora' of Decaisne, Jacquemont found *Ll. serotina* in India (the Himalaya, we may presume). Probably his plant is identical with this. Our figure is taken from a drawing and specimens sent by Capt. Munro.

Fig. 1. Sepals with the base of a filament. *f.* 2. Stamen. *f.* 3. Pistil, and the section of an ovary :—*magnified.*

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TAB. DCCCXXXV.

Neuracanthus sphærostachys, *Dalz.*

Foliis oblongo-ovatis subsessilibus utrinque pubescenti-scabris, spicis axillaribus sessilibus capitato-congestis subglobosis sericeo-tomentosis post anthesin valde crescentibus, bracteis orbiculatis repente acuminatis coloratis 5–7-nerviis reticulato-venosis calyce paulo longioribus, calycis labio superiore oblongo 3-dentato 3-nervio inferiore profunde bifido, laciniis lanceolatis 1-nerviis omnibus reticulatim venosis, corollæ tubo gracili cylindrico calycem æquante, limbo integro ventricoso rotato-cyathiformi. *Dalz.*

Neuracanthus sphærostachys, *Dalz. in Hook. Kew Gard. Misc.* 2. *p.* 140 (1850).

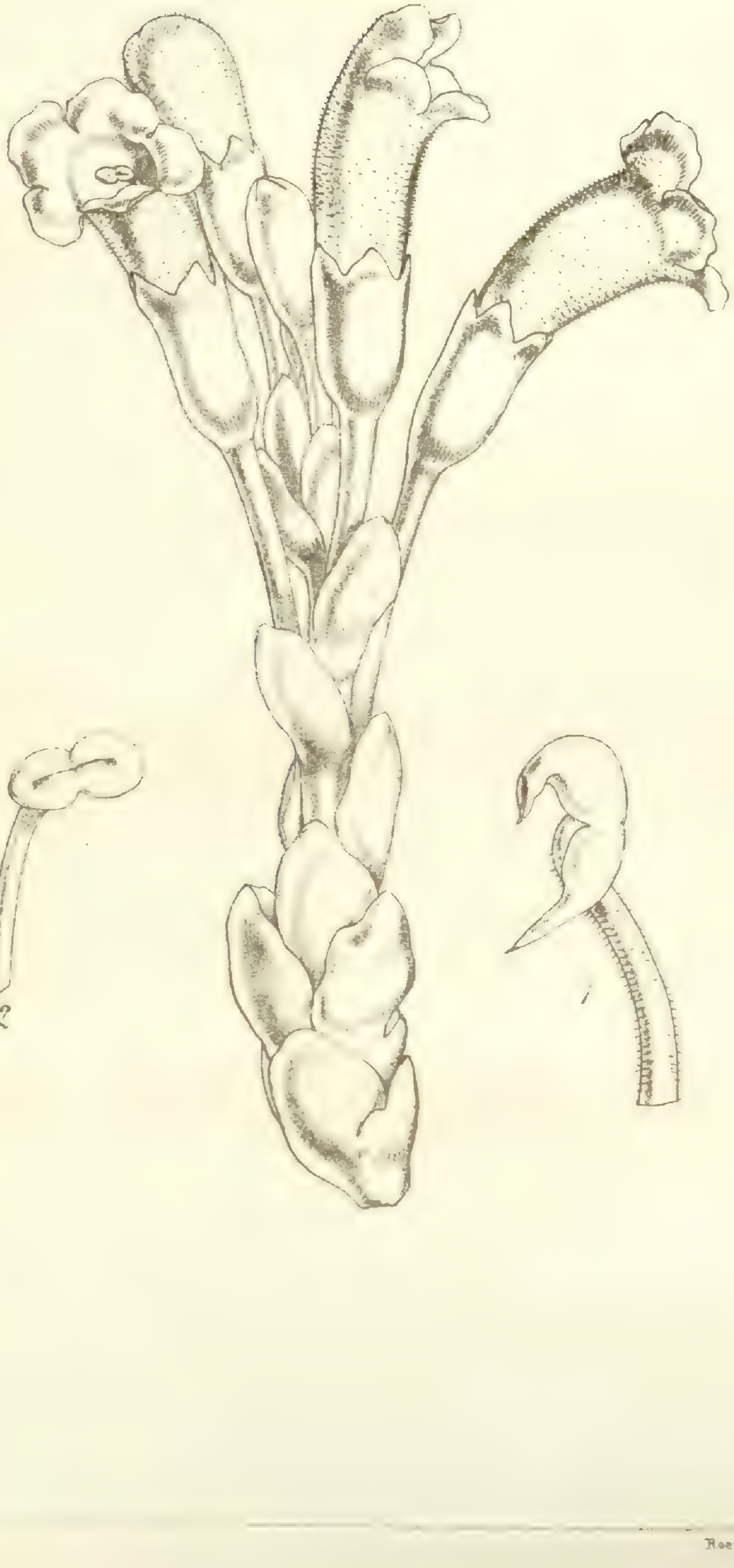
N. Lawii, *Wight, Ic. Plant. Ind. Or. v.* 4. *t.* 1531.

Hab. Bombay, in both Concans, *N. A. Dalzell, Esq.; Mr. Law.*

"E *radice* perenni caulibus plurimis erectis simplicibus 1½–2 pedes altis, obtuse quadrangularibus, pubescenti-scabris. *Folia* 4 poll. longa, 2 poll. lata, duriuscula. *Spicæ* 6–12 lin. longæ. *Bracteæ* et calyces floriferi 3 lin., fructiferi 9–12 lin. longi, capsulam includentes. *Corolla* 6 lin. longa, *tubo* albo, *limbo* cæruleo. *Antheræ, stigma, capsula,* &c. omnino ut in *N. tetragonostachys.*"

"Although the limb of this plant is nearly entire, it is very evidently made up of five pieces, not exactly by the union of their margins, but by the interjection, as it were, of triangular pieces, so as to unite the opposite margins. Each piece has 3 veins, there being 6 close together in the upper part of the limb, and 2 lines of hairs indicating the two parts of an upper lip. The same marks are visible, at greater distances from each other, indicating 3 divisions, the middle one being furnished with a line of hairs, both outside and inside. The æstivation is decidedly plicate, not contorted." *Dalzell.*

Fig. 1. Flower. *f.* 2. Pistil. *f.* 3. Perfect anther. *f.* 4. Sterile anther:—*magnified.* *f.* 5. Enlarged calyx and bracts with fruit. *f.* 6. Fruit:—*nat. size.*



2

Pitcher Lith.

Reeve & Nichols imp.

TAB. DCCCXXXVI.

Christisonia Stocksii, *Hook.*

Scapo crasso simplici imbricatim squamoso, squamis late ovatis concavis obtusissimis, floribus racemosis, pedicellis elongatis erectis ebracteatis, calycis tubulosi cylindracei limbo quinquefido vix bilabiato, lobis triangularibus obtusiusculis, corollæ pubescentis albo-cærulescentis tubo calycem duplo superante cylindraceo sursum paululum dilatato, limbo obliquo bilabiato, labio superiore bi- inferiore trilobo, lobis patentibus rotundatis sinuatis integerrimis, filamentis pubescentibus, antheris calcaribus elongato-cuspidatis, stigmate bilabiato.

Orobanchea, *Stocks, MS. in Herb. nostr.* (*without No.*).

Hab. Scinde; parasitic on the roots of *Strobilanthes* during the rains, *Dr. Stocks.* Salsette; parasitic on the roots of *Strobilanthes, N. A. Dalzell, Esq.*

I give this from imperfect materials; a coloured drawing made by a native artist, and dried specimens sent by Dr. Stocks and Mr. Dalzell, which latter turn black in drying. The plant is evidently of the genus *Christisonia* of Mr. Gardner, of which seven species are described by him, one only being a previously noted plant, viz., the *C. subacaulis,* Gardn. (Phelipæa subacaulis, *Benth. Scroph. Ind. p.* 55). Mr. Gardner seems to have erred only in placing the genus in *Cyrtandraceæ.* "*Cyrtandraceæ,*" says Mr. Bentham, "have no albumen, and *Christisonia* has in every point the habit and character of *Orobancheæ.* At the same time, I admit that *Gesnerieæ, Besleriеæ, Cyrtandreæ,* and *Orobancheæ,* may be well considered as tribes of one order; only that, whether as an order or a tribe, it is to *Orobancheæ* and not to *Cyrtandreæ* that *Christisonia* belongs." One cannot but be struck with the similarity between this genus and *Clandestina.* The plant, as shown in our coloured figure sent by Dr. Stocks, is white when fresh, even the flower, except the upper side of the limb, which is pale blue.

Fig. 1. Anther and portion of a filament. *f.* 2. Portion of the style and stigma:—*magnified.*

Fitch, del et lith.

Reeve & Nichols, imp.

TAB. DCCCXXXVII.

Statice Stocksii, *Boiss.*

Caulibus suffruticosis abbreviatis simplicibus foliosis basi denudatis, foliis carnosis planiusculis enerviis punctulatis glabris v. parce puberulis ovato-spathulatis rotundatis in petiolum longe attenuatis, petioli basi in vaginam brevem amplexicaulem oblique truncatam dilatata, scapis terminalibus brevissimis subangulatis fragilibus paniculam parvam contractam subsecundam ovatam gerentibus, spiculis bifloris in spicas brevissimas fasciculiformes confertis, bracteis herbaceo-rubellis angustissime rubello-marginatis inferiore ovata subcarinata obtusiuscula basi vaginante, superiore triplo longiore oblonga, calycis tubo recto rubello ad costas dense et longe ciliato, limbo albo-rubello patulo breviter et acutiuscule trilobo tubo dimidio breviore, antheris longiuscule exsertis. *Dcne.*

Statice Stocksii, *Boiss. in De Cand. Prodr. v.* 12. *p.* 664. *Wight, Illustr. of Ind. Bot. v.* 2. *p.* 225: *t.* 178.

Hab. By the sea and inland throughout Scinde, *Dr. J. E. Stocks, n.* 436.

A stunted woody shrub, general throughout Scinde : 6 inches to a foot high, forming a little bush. Flowers very beautiful : petals rose-pink ; genitals exserted. *J. E. Stocks.*

Decaisne alludes to its resemblance to *S. Arabica*, from which it differs in the abbreviated petioles, more contracted branches of the panicle, the superior bract less involute, the calycine tube ciliated.

Fig. 1. Flower. *f.* 2. Fruit :—*magnified.*

Fitch del et lith.

Reeve & Nichols, imp.

TAB. DCCCXXXVIII.

Leptadenia Jacquemontiana, *Dcne.*

Aphylla, vel quandoque foliis linearibus remotis breviter petiolatis cum ramulis gracilibus virgatis pube brevissima pulverulentis, umbellis interfoliaceis breviter pedunculatis 10–15-floris, floribus viridi-luteis pedicellatis, corollæ pubescentis laciniis margine revolutis pube densiore superne vestitis, fauce inter lacinias plicata plicatura incrassata biloba. *Stocks.*

Leptadenia Jacquemontiana, *Decaisne, Etud. Ascl. Ann. Sc. Nat.* 1838. *p.* 270, *and in De Cand. Prodr. v.* 8. *p.* 629.

Hab. About Agra, *Jacquemont.* Throughout Scinde, in all soils, *Dr. J. E. Stocks* (*n.* 408).

Received, with an excellent drawing and description, and copious specimens, from Dr. Stocks. It tallies sufficiently well with the character given by Decaisne of *L. Jacquemontiana*; but it must be confessed that all the species of the so-called "aphyllous groupe" (viz. *L. Spartium*, Wight, *L. pyrotechnica* and *L. gracilis*, Decaisne, and our own) are very difficult to be distinguished from each other in the dried state. Hence I have given Dr. Stocks' character, drawn from the living plant, rather than Decaisne's. Dr. Stocks further observes, that the species "forms a bush, 2–6 feet high, with erect green twiggy branches, and leafless, like the stems of a rush. *Stem* woody at the base, $\frac{1}{2}$ an inch or more in diameter, gradually diminishing to $\frac{1}{2}$ a line on the topmost shoots. *Divisions* trichotomous. *Internodes* 3-6 inches long. *Nodes* generally leafless, but sometimes a few leaves, 1-3 inches long and a line broad, are found. *Peduncle* 2 lines long: *pedicels* 1 line. *Flower* 2 lines across. There is a shallow saucer-like rim at the base of the staminal column, resembling the *lower* corona of *Sarcostemma* and *Oxystelma*. *Fruit* (here exhibited) very rare."

Fig. 1. Underside, and *f.* 2. Upper side of a flower. *f.* 3. Seed:—*magnified.*

Reeve & Nichols imp.

TAB. DCCCXXXIX.

Cadaba heterotricha, *Stocks.*

Glauco-cinerascens, ramis incanis, foliis petiolatis orbiculatis basi plerumque cuneatis apice emarginatis pulverulento-pubescentibus pilis stellatis nunc glanduloso-pilosis, petalis 4 orbicularibus unguiculatis, nectario gynophoro duplo breviore apice bilabiato labio inferiore truncato superiore elongato patenti-reflexo apice 2–3-crenato, filamentis 5 glabris liberis, ovario gynophoroque glanduloso-pubescentibus.

Cadaba heterotricha, *Stocks, MS.*

Hab. Among rocks towards Cape Monze, Scinde; called *Joorg* by the natives. *Dr. J. E. Stocks.*

Near the Arabian *C. glandulosa* of Forskal, and *C. rotundifolia*; especially the latter, but the leaves of *rotundifolia* are larger and more rotundate with a broader almost truncated base, and the whole plant is destitute of pulverulent down: *C. glandulosa* has much smaller leaves with an apiculated apex, quite obsolete venation, clothed, as well as the branches, with glandular hairs.—Dr. Stocks observes that this is a small tree, 12–20 feet high. The whole of the herbaceous parts have generally an ashy-glaucous look which is due to very minute sessile stellated hairs covering the whole epidermis. Mixed with these stellated hairs are pedicelled ones forked like a Medusa's head at their summit. These last give a farinaceous look to the young shoots. Together with these there are always present glandular-capitate hairs generally few in number and inconspicuous. Sometimes, however, they are much enlarged and present in great numbers; and then, instead of a grey frosted look and smooth feel, we have the young shoots and leaves golden-green to the eye and scabrous to the touch, from the presence of these large and stiff hairs: it is then only that the plant has something the look of *C. glandulosa*.

Fig. 1. Flower. *f.* 2. Anther. *f.* 3. Apex of the nectary. *f.* 4. Ovary:—*magnified. f.* 5. Leaf of the downy var.:—*nat. size.*

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TAB. DCCCXL.

NEURADA PROCUMBENS, *Linn.*

Neurada procumbens, *Linn. Sp. Pl. p.* 631. *Forsk. Fl. Æg. Arab. p.* 90. *Lam. Ill. t.* 393. *Desf. Fl. Atlant. v.* 1. *p.* 368. *De Cand. Prodr. v.* 2. *p.* 548. *Wight. Ic. Plant. Ind. Or. v.* 4. *t.* 1596.

HAB. Egypt, Arabia, Numidia, *Forskal and others.* Sandy places, Scinde, *Dr. J. E. Stocks.*

A rather woody-looking, but in reality an annual, very woolly and hoary, much-branching, procumbent plant, with a few descending stout, somewhat fibrous roots. *Leaves* ovate, petiolate: at the base of the petiole is always a smaller sessile leaf, from the axil of which the peduncle appears, and a minute stipule. As is often the case with *Medicago*, a young plant often germinates from the fruit, bearing even in maturity the curiously-shaped prickly husk forming a ring round the collum of the root. The flowers are axillary, solitary upon a peduncle which is longer than the leaves. The *calyx*, from a broad flat unarmed base, is conical, echinate, with numerous erect prickles, closely incorporated with the ovaries and increasing in size with the fruit: the mouth of the calyx contracted; the limb of 5 erect, broad ovate, acuminate, spinous teeth or lobes, and 5 more exterior narrow subulate ones. *Petals* 5, obovate, erect, deciduous, as long as the calyx-lobes and inserted just within them, alternating with the larger calyx-lobes. *Stamens* 10, epigynous, inserted between the petals and styles: *filaments* short, from a broad base, subulate; *anthers* ovate, 2-celled. *Ovaries* 10, arranged in a circle, incorporated with one another and with the calyx-tube. *Styles* 10, placed in a circle within the stamens, short, from a broad base, bearing a capitate stigma; at length much elongated, and resembling a cluster of spines in the centre of the fruit. *Fruit* a dry capsule, invested by the prickly tube of the calyx, 10-celled, with the cells opening at the top. *Seeds* solitary in each cell, attached to the central axis, slightly ascending, then curved down. *Albumen* none; *radicle* curved; *cotyledons* nearly oblong and curved.—Our figure was made from a drawing sent by Dr. Stocks.

Fig. 1. Flower. *f.* 2. Flower cut through vertically. *f.* 3. Transverse section of the ovary. *f.* 4. Fruit. *f.* 5. Fruit cut through vertically, showing the elongated persistent styles. *f.* 6. Embryo.

TAB. DCCCXLI.

Aganosma Concanensis.

Volubilis glabra, ramis teretibus, foliis late elliptico-ovatis brevissime acuminatis basi cordatis membranaceis remote penninerviis subtus pallidioribus transversim venosis, pedunculis axillaribus folio brevioribus, cymis compositis densis, sepalis triquetro-acuminatis, corollæ hypocrateriformis tubo brevi vix calycem superante, limbi quinquepartiti laciniis oblongis obtusis patentibus, ore intus ciliato, staminibus exsertis, glandulis hypogynis 5 magnis triquetris obtusis.

Hab. In the South Concan, Bombay, rare. *N. A. Dalzell, Esq.*

Sent, with many other rarities, from Concan, Bombay, by my valued correspondent, Mr. Dalzell. It is considered by that gentleman a new plant, and, as far as I can find, justly so. It would have ranked with *Echites*, before the genera of *Apocynaceæ* had been remodelled by Don and Alphonse De Candolle ; yet it does not harmonize well with any genus in the 'Prodromus.' I have provisionally placed it in *Aganosma*, but I am not sure that the stigma corresponds with that genus, and the hypogynous glands are 5, and distinct. The flowers, judging from the dried state, are green, tinged with purple. Though I have spoken of the plant as glabrous, yet the petioles are obscurely ciliated, and the pedicels are, when magnified, seen to be slightly downy.

Fig. 1. Flower. *f.* 2. Pistil and intracalycinal glands :—*magnified.*

TAB. DCCCXLII.

Glycycarpus racemosa, *Dalzell.*

Gen. Char. Glycycarpus, *Dalz.*, nov. gen.—*Flores* polygamo-dioici. *Calyx* quadripartitus, persistens; laciniis ovatis, obtusis. *Corollæ petala* 4, sub disco hypogyno 4-crenato inserta, oblongo-linearia, æstivatione imbricata. *Stamina* 4, sub disci margine inserta, cum petalis alterna iisque breviora. *Filamenta* libera. *Antheræ* introrsæ, biloculares, longitudinaliter dehiscentes. In floribus masculis ovarii rudimentum nullum; in flore fertili *ovarium* unicum, liberum, sessile, uniloculare: *ovulum* unicum, ex apice funiculi complanati e basi loculi adscendentis pendulum; *stylus* brevissimus; *stigma* capitato-discoideum. *Drupa* supera, transverse oblonga, depressa, carne parca, pulposa, dulci, esculenta; *putamine* crustaceo, monospermo. *Embryonis* exalbuminosi *cotyledones* crassæ, profunde plano-convexæ.—*Arbor Indica parva;* foliis *alternis, petiolatis, simplicibus, oblongis, penninerviis, integerrimis;* petiolo *nudo;* floribus *racemosis, parvis. Dalz.*

Glycycarpus racemosa, *Dalzell, Bot. of West. Ind. in Hook. Kew Gard. Misc. v.* 2. *p.* 39.

Hab. Rare in the Southern Concan. Fl. Feb.; fr. ripe in April. *Dalzell.*

"The tree," observes Mr. Dalzell (l. c.), "on which this genus is founded, agrees in many points with the *Holigarna racemosa*; but unless we suppose some unaccountable errors to exist in Roxburgh's description of that tree, it must be very different, the *superior* fruit being a sufficient mark of distinction." We may add, too, that besides the union of the calyx with the ovary, the fruit of *Holigarna* is said to be the size of a large olive.

Fig. 1. Male flower. *f.* 2. Hypogynous disc from its centre. *f.* 3. Fruiting raceme (*nat. size*). *f.* 4. Fruit. *f.* 5. Transverse section of the same. *f.* 6. Embryo:—*all but f.* 3 *magnified.*

Fitch, del et lith.

Reeve & Nichols imp.

TAB. DCCCXLIII.

Nomaphila pinnatifida, *Dalzell.*

Tota hirsuta glanduloso-pubescenteque, foliis petiolatis lanceolatis profunde pinnatifidis, floribus in foliorum axillis oppositis solitariis sessilibus, bracteis oblongis integris, calycis laciniis linearibus obtusis, corollæ labio inferiore disco bullato.

Nomaphila pinnatifida, *Dalzell, Bot. of West. Ind. in Hook. Kew Gard. Misc. v.* 3. *p.* 38.

Hab. Near running streams of the Southern Concan, at the foot of the Ghauts, Bombay, *N. A. Dalzell, Esq.*

"*Caulis* obtuse tetragonus, ad nodos tumidus. *Folia* lineari-lanceolata, 3 poll. longa, 1½ poll. lata, pinnatisecta, segmentis 6–8-jugis lineari-oblongis obtusis serrulatis. *Bracteæ florales* oblongæ, foliaceæ, ciliatæ, glandulosæ, calycem æquantes. *Calyx* 2–2½ lin. longus. *Corollæ* (5 lin.) palatum bullatum. *Stylus* puberulus. *Stigma* laterale.—Herba tenera, 1–2-pedalis." *Dalzell.*

Four species of this genus are described by Dr. Nees von Esenbeck, in De Candolle's 'Prodromus:' no figure exists of any. Three are from Southern India and the islands, the fourth from Senegambia. Mr. Dalzell now adds a fifth, and very distinct species, from Bombay.

Fig. 1. Flower and bracteas. *f.* 2. Pistil:—*magnified.*

Fitch, del et lith.

Reeve & Nichols imp.

TAB. DCCCXLIV.

Bischoffia trifoliata, (*fœm.*)

Foliolis ovatis acuminatis magis minusve serratis vel crenatis basi obtusis, racemis fœmineis simplicibus compositisque, floribus glabris, fructibus globosis magnitudine pisi majoris.

Bischoffia Javanica, *Blume, Bijdr. p.* 1168.

Bischoffia Rœperiana, *Dcne. in Jacquem. Pl. Ind. Or. p.* 152.

Microelus Rœperianus, *Wight et Arn. in Edinb. New Phil. Jour. v.* 14. *p.* 298. *Wight, Cat. n.* 941.

Andrachne trifoliata, *Roxb. Fl. Ind. v.* 3. *p.* 728. *Wall. Cat. n.* 7956.

Andrachne apetala, *Roxb. in Wall. Cat. l. c.*

Bischoffia oblongifolia, *Dcne. in Jacquem. Pl. Ind. Or. p.* 153. *t.* 154.

Bischoffia Cumingiana, *Dcne. in Jacquem. Pl. Ind. Or. p.* 153. *Cuming, Herb. n.* 1174.

Stylodiscus trifoliatus, *Bennett, in Horsfield's Plant. Javan. Rar. v.* 1. *p.* 133. *t.* 29.

Hab. Throughout India, and the Indian Archipelago.

Roxburgh, who first took up this plant under the name of *Andrachne trifoliata*, observes that it is a native of all parts of India. We can perceive no specific distinction whatever in our specimens from Java, sent by De Vriese, from the Philippine Islands (*Cuming*), from Bengal (*Wallich*), from Madras (*Wight*) and Bombay (*Dalzell*); nor do the figure and description of Decaisne's *B. oblongifolia*, from Dehra-Doun, appear in any respect to differ. The Manilla *B. Tomi*, of Decaisne, seems to present no peculiarity but the somewhat larger fruit; and it is more than probable that this curious genus (the relations of which in the family Mr. Bennett expresses himself unable to indicate) is limited to *one* species. The trifoliolate leaves, combined with the arborescent character (its trunks in Java are used for masts and spars of vessels), are uncommon in this natural family, and Blume was led to place the genus in *Terebinthaceæ*. In Bombay, whence our specimens figured are derived, the tree has the native name of *Bake*, and grows in the Ghauts, lat. 16°, elev. 2000 feet above the level of the sea.

Fig. 1. Female flower. *f.* 2. Section of ovary. *f.* 3. Section of fruit, where two cells prove abortive. *f.* 4. Seed. *f.* 5. Vertical section of ditto. *f.* 6. Embryo removed from the albumen :— *magnified.*

Fitch del. et lith.

Reeve & Nichols, imp.

TAB. DCCCXLV.

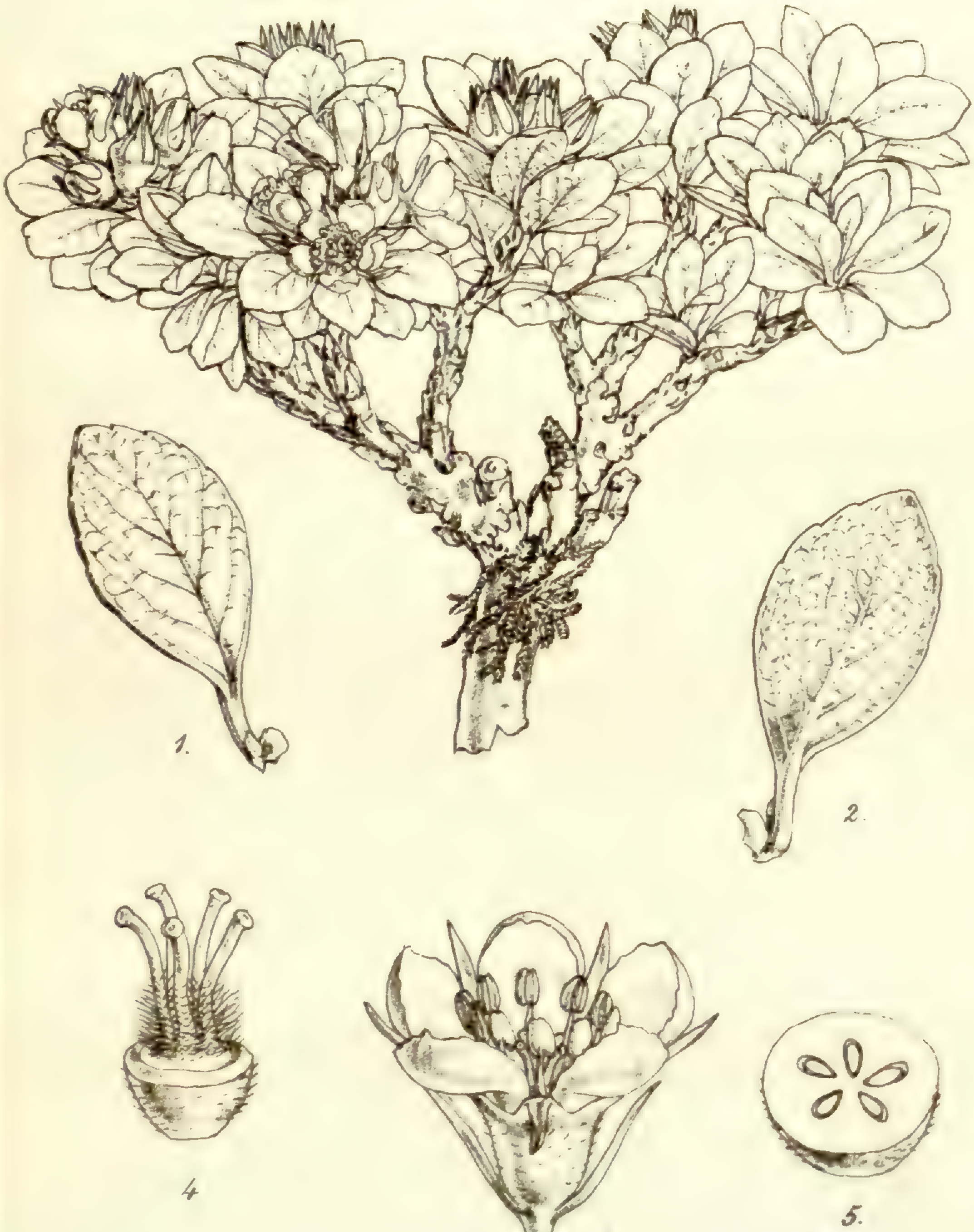
Dracophyllum Milligani, *Hook.*

Subacaulis, foliis coriaceis rigidis e lata concava basi subulatis canaliculatis falcato-secundis spicam superantibus apicibus (siccitate sæpe spirilater tortis) marginibus asperulis, pedunculo scapiformi pubescente, spicis terminalibus compositis, spicularum bracteis basi latissima membranacea inferioribus elongato-foliaceis, corollæ tubo late cylindraceo sepala lato-lanceolata æquante, staminibus vix exsertis liberis, stylo incluso, squamulis hypogynis lato-obcordatis.

Hab. Mount Sorell, Macquarrie Harbour, *Mr. Milligan.* (*R. Gunn, Esq., n.* 2051.)

Till the discovery of this very fine species of *Dracophyllum* by Mr. Milligan, in 1846, the genus was supposed not to exist in Tasmania, and Dr. Hooker (Fl. Antarctica, vol. i. p. 48) describes the genus *Richea* as its representative. Our Herbarum is indebted to Ronald Gunn, Esq., not only for a magnificent new species of *Richea* (*R. squamosa*, Hook. fil.), but for the present very distinct *Dracophyllum*. The specimens sent of the present plant, of which our figure is a fair sample, are said to be the full size, but these probably grow in tufts, from a short caudex.

Fig. 1. Stamen. *f.* 2. Pistil and hypogynous scales. *f.* 3. Flower :—*magnified.*



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Fitch, del et lith.

Reeve & Nichols, imp.

TAB. DCCCXLVI.

Hesperomeles heterophylla, *Hook.*

Fruticosa nunc humillima rarius spinosa glaberrima vel corymbis ramulis costaque parce tomentosis, foliis ovalibus subovatisve acutis v. obtusis crenato-serratis subtus pallidis copiose reticulatim venosis, corymbis terminalibus paucifloris, calycis basi bibracteati segmentis calycinis subulatis longitudine petalorum, bracteis linearibus tubum calycis æquantibus, stylis basi villosis.

Mespilus heterophylla, *Ruiz et Pav. Fl. ined. t.* 425 *b.*

Eriobotrya (?) heterophylla, *Lindl. Linn. Trans. v.* 13. p. 102.

Osteomeles glabrata, *H. B. K. Nov. Gen. Am. v.* 6. *p.* 166 *(large Ed.) t.* 53.

Eriobotrya obtusifolia, *De Cand. Prodr. v.* 2. *p.* 632.

Cratægus obtusifolia, *Pers. Syn. v.* 2. *p.* 37.

Hesperomeles obtusifolia, *Lindl. in Bot. Reg. sub fol.* 1956. *Benth. Pl. Hartweg. p.* 129. *n.* 732.

β. *vacciniifolia*; fruticulus depressus, foliis multoties minoribus.

Hab. Andes of Peru (*Ruiz et Pav.*), Andes of Popayan; elev. between 6 and 7,000 feet. Andes of Loxa, *Hartweg* (*n.* 732). San Carlos, *Mathews* (*n.* 1445). New Grenada, *Linden* (*n.* 1426). Sierra Nevada de Santa Martha, *Purdie*. Quitinian Andes, from 7,000–12,000 feet, at which latter elevation it becomes our var. β.

Dr. Lindley has probably correctly separated from *Eriobotrya* certain South American *Pomaceæ*, and constituted of them the genus *Hesperomeles*. The fruit, however, was unknown to him. Among my copious specimens I find ripe fruit on two species, and it is exactly as in *Mespilus*, "Pomum turbinatum (seu globosum) *apertum*, 5-loculare, endocarpio osseo:" the five osseous endocarps are indeed quite exposed to view, and are accurately figured so in both the species to which I allude, viz., *Mespilus lanuginosa* and *M. heterophylla*, by Ruiz and Pavon. It thus becomes a question how far they are rightly separated from that genus. The habit of the two plants now mentioned are distinct from *Mespilus*, but rather on account of their usually humble growth and coriaceous persistent leaves, than from any other character. *Mespilus stipulosa*, H.B.K., which I have from Loxa, may perhaps unite the two. *Hesperomeles* (Mespilus) *lanuginosa*, R. et P. Fl. ined. t. 425 *a.*, I possess, with leaves as large as *Osteomeles latifolia*, H. B. K. l. c. t. 554 (H. cordata, *Lindl.*), and other specimens with leaves as small, and as rusty-coloured beneath, as *Osteomeles ferruginea* of Humboldt, and *H. oblonga* of Lindley; all of which may, I think, be fairly recorded as varieties of one and the same species.—Our present species seems sometimes to form a good-sized bush, with leaves two inches long; while, from great elevations, I have specimens like the variety here figured, with leaves less than half the size now represented. Professor Jameson describes the fruit (about the size of a pea) as esculent.

Fig. 1, 2. Upper and under side of leaves. *f.* 3. Flower, with bracts. *f.* 4. Ovary and styles. *f.* 5. Section of ovary:—*magnified.*

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Fitch del et lith.

Reeve & Nichols, imp.

TAB. DCCCXLVII.

Actinotus leucocephalus, *Benth.*

Annuus pubescenti-pilosus dichotome ramosus, foliis palmatim 3–5-sectis segmentis integerrimis 3–5-fidisve, laciniis linearibus involucro floribusque pilis longis niveis sericeo-nitentibus densissime obsitis, calycis limbo cupuliformi, corollis pentapetalis.

Actinotus leucocephalus, *Benth. in Hugel Enum. Pl. Nov. Holl. p.* 56. *Bunge, in Lehm. Plant. Preiss. p.* 292.

β. foliorum segmentis latioribus (Tab. Nostr. 847).

Hab. Swan River settlement. *Hugel, Drummond* (*n.* 28). *Preiss* (*n.* 2056).—β. Interior of the same country, *Drummond.*

By Mr. Drummond the more usual form of this plant, 1–2 feet and more high, slender, with very long peduncles and narrow segments to the leaves, the densely silky umbels becoming tawny when dry,—was sent home from the Guildford Plains, interior of Swan River settlement. The present individual was detected far in the interior of the country, and is the only specimen that was preserved. Mr. Drummond was disposed to consider it a distinct species; but I am satisfied it is a mere variety, with shorter and stouter stems, broader leaves, if possible more silky umbels, and the silkiness retaining its white hue when dry. The ovaries and young fruit, as well as the pedicels, are most copiously silky, so as to conceal entirely the ridges.

Fig. 1. Male flower. *f.* 2. Perfect flower. *f.* 3. The same, with the calyx and petals and stamens removed:—*magnified.*

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TAB. DCCCXLVIII.

Hutchinsia? Tasmanica, *Hook.*

Annua digitalis subsimplex glabra vel hirsutula, foliis radicalibus spathulatis in petiolum attenuatis caulinis oblongis sagittato-semiamplexicaulibus omnibus subintegerrimis, floribus corymbosis, fructu elongato racemoso, pedicellis apice incrassatis demum elongatis patentibus, petalis spathulatis sublonge unguiculatis sepalis hirsutis duplo longioribus, ovario ovali seu obovato compresso, stylo crassiusculo, loculis 4-spermis.

Hab. About Arthur's Lake, western mountains of Van Diemen's Land, *R. Gunn, Esq.* (*n.* 2041).

I place this provisionally only in *Hutchinsia*. Except in the more distinct style, the fruit has a good deal of resemblance to that of *Hutchinsia* (now, by E. Meyer and Reichenbach, referred to *Capsella*) *procumbens*. I possess no perfect fruit. The thickening of the pedicel just below the calyx is very remarkable in this plant.—"A very small and insignificant annual," Mr. R. Gunn observes, "being barely visible, except that it happened to be in flower (Nov. 1848) when few other plants were blossoming in the elevated region about Arthur's Lake."

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Stamen and pistil. *f.* 4. Capsule. *f.* 5. Dissepiment and seeds :—*magnified.*

Fitch del et lith.

Reeve & Nichols imp

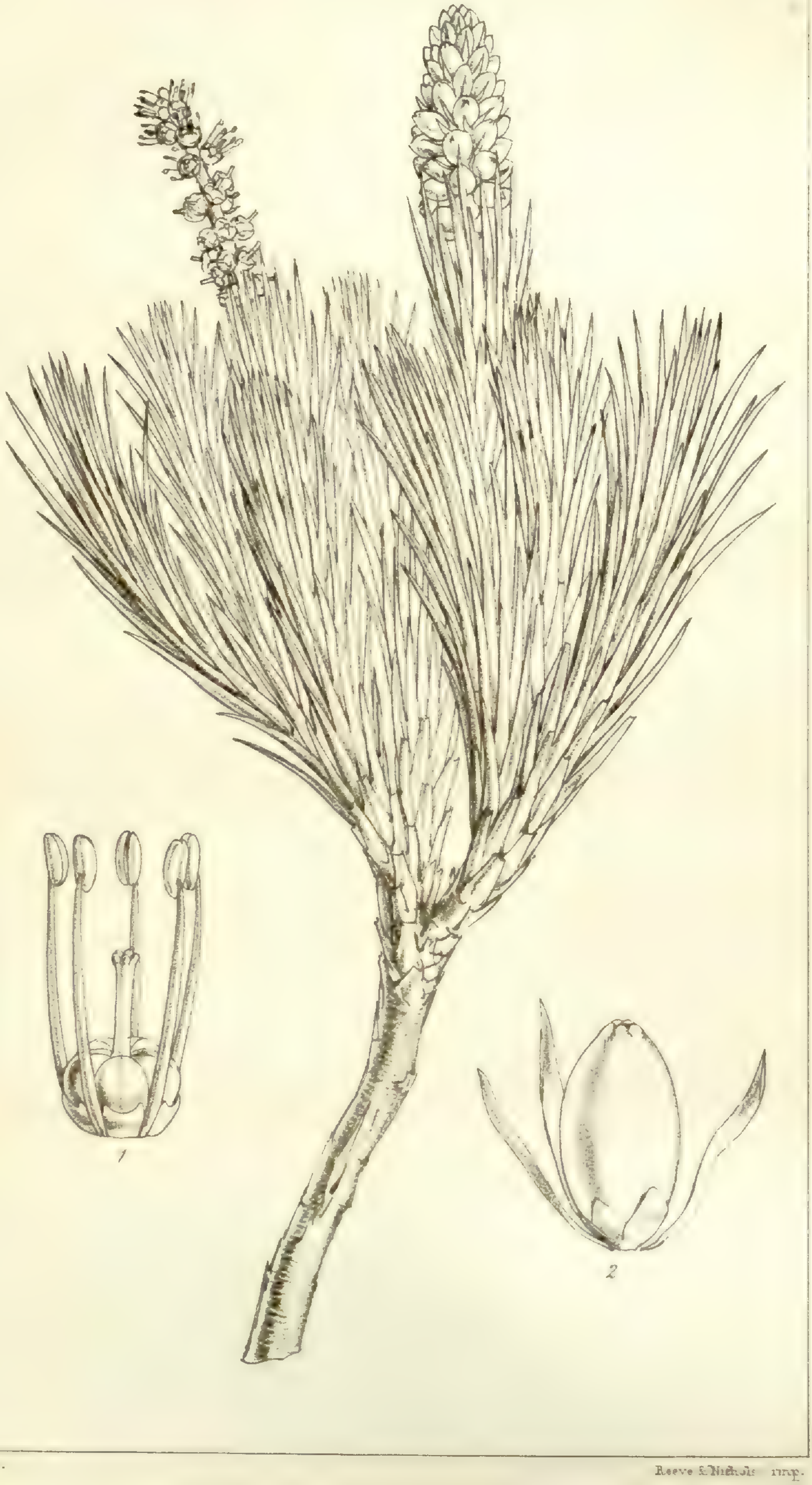
TAB. DCCCXLIX.

Eucalyptus platypus, *Hook.*

Glaberrima, ramis teretibus, foliis alternis obcordatis crasso-coriaceis rigidis nitidis impunctatis subsinuatis in petiolum brevem subtortum attenuatis, pedunculo axillari longitudine foliorum ancipiti-compresso latissimo lignoso-coriaceo apice 3–5-floro, operculo cylindraceo conico elongato-obtuso, calyce turbinato, staminibus numerosis sulphureis calyce longioribus.

Hab. South-western Australia, near King George's Sound, *Drummond* (*n.* 183).

A very remarkable species of *Eucalyptus*, easily distinguished in this extensive and difficult genus. *Euc. Preissiana*, Schauer, has a similar broad and ancipitate peduncle, but that is placed in the division *Oppositifoliæ*, and has the leaves opposite or subalternate, elliptical, oblong or subparabolic, pellucido-punctate, the base rounded, and the petiole as long as the peduncle,—characters much at variance with our plant.



Fitch del. et lith.

Reeve & Nichols imp.

TAB. DCCCL.

Richea scoparia, *Hook. fil.*

Caule brevi lignoso apice fastigiatim ramoso, foliis sesquiuncialibus erectis rigidis strictis e lata semiamplexicauli basi subulato-pungentibus leviter canaliculatis marginibus carinaque (apicem versus) asperulis, spica terminali dense composita folia vix superante bracteata, bracteis lineari-acuminatis longitudine fere floris, sepalis late ovatis, corolla ovali, ore brevissime 5-dentato clauso.

Richea scoparia, *Hook. fil. in Lond. Journ. Bot. v.* 6. *p.* 273.

Hab. Mount Wellington and Valentine's Peak, Van Diemen's Land, *Lawrence, Backhouse, R. Gunn.* Mount Sorell, Macquarrie Harbour, *R. Gunn* (*n.* 2049).

This is undoubtedly a *Richea* of Brown, according to the structure of the corolla, which is closed at the mouth, and separates transversely from its base before the fruit ripens. It is, as Dr. Hooker observes (*l. c.*), very different from any other known species.

Fig. 1. Stamens, pistil, and hypogynous glands. *f.* 2. Flower and bracts :—*magnified.*

TAB. DCCCLI.

Forstera bellidifolia, *Hook.*

Glabra, caule perbrevi radicante, foliis rosulatis spathulatis obtusis subcoriaceis marginatis, scapo digitali filiformi unifloro nudo vel ante apicem bi-tribracteato, bracteis linearibus, flore inclinato, calycis tubo globoso glabro, limbi lobis lineari-oblongis, corollæ limbi subregularis lobis oblongis obtusis patentibus sinubus squama erosa auctis.

Hab. Mount Sorell, Macquarrie Harbour, Van Diemen's Land, *R. Gunn, Esq.*

This appears to be a very curious little plant, of which unfortunately our specimen only afforded one, not very perfect, flower; and some apology is due for its representation in such a state. If we see correctly, the corolla is nearly regular, with five spreading, oblong, obtuse segments, and alternating with them, in the sinuses, is a fimbriated or erose scale. The stigma also appears to be two-lipped. Our main object in offering so incomplete a figure, is to direct attention to the plant and its locality: and we are not without hopes that we shall soon be able to give a more complete analysis of it. If, as we suspect, a *Forstera*, it is the first that has been detected in Australia.

Fig. 1. Flowering, and *f.* 2. fruiting specimen:—*natural size.* *f.* 3. Upper extremity of scape with a flower. *f.* 4. Upper portion of the column with stamens, and what appeared to be a two-lipped style:—*magnified.*

Hooker Flor Tasmaniæ Vol 1 p 235

TAB. DCCCLII.

Balaustion* pulcherrimum, *Hook.*

Gen. Char. Balaustion, *Hook.* (Myrtaceæ, Leptospermeæ). *Calycis* colorati *tubus* amplus, urceolatus, ima basi solummodo ovario adhærens, reliquus liber; *limbus* 5-partitus, lobis late ovatis submembranaceis patentibus. *Petala* 5, ovali-orbicularia, calycem paulo superantia, intense coccinea. *Stamina* numerosa, petalorum longitudinis, ad oram calycis inserta seric simplici; *filamenta* subulata; *anthera* dorso inserta, connectivo oblongo, bilocularis, loculis parallelis rima longitudinali dehiscentibus. *Ovarium* parvum, in fundo calycis cum ejus basi adhærens, turbinatum, triloculare; loculis sub-6-ovulatis, ovulis in duas lineas superpositis. *Stylus* stamina superans, filiformis. *Stigma* paulo dilatatum.—Frutex *humilis Australasiæ meridionali-occidentalis.* Caulis *basi crassus, tortuosus*; rami *copiosi, fasciculati, densi, graciles, stricti, spithamæi ad pedales, cortice pallido, pelliculo albo laxo tecti.* Folia *opposita et in axillas fasciculata, in ramulos brevissima, linearia, acute triquetra, punctato-glandulosa*; petiolo *brevissimo fusco in ramum articulato.* Flores *copiosi, pro magnitudine plantæ magni, speciosi, colore et fere forma* Punicæ nanæ *glanduloso-punctati, secundi, versus apicem ramorum siti.* Pedunculi *brevissimi,* folio *breviores, e ramulis axillaribus orti, infra calycem libracteati,* bracteis *ovatis membranaceis coloratis calycis basi appressis.*

Balaustion *pulcherrimum.*

Hab. South-western Australia, discovered between the Swan River and King George's Sound, *Drummond.*

Certainly one of the most lovely of plants, with flowers three-fourths of an inch long, richly coloured, and both in shape and colour very much resembling those of the dwarf Pomegranate. The nearest affinity of the genus is with *Hypocalymna,* Endl., of one species of which, *H. robustum,* it is said "floribus copiosis speciosisque ornatissima:" but this has as much the superiority over that, as *that* has over the *Leptospermum* groupe in general of *Myrtaceæ.* Petals, even when dry, of the most brilliant scarlet.

Fig. 1. Flower. *f.* 2. Calyx, including the pistil. *f.* 3, 4. Stamens. *f.* 5. Pistil, the free portion of the calyx being removed. *f.* 6. Transverse section of the ovary:—*magnified.*

* Βαλαύστιον is the name given to the wild flowers of the *Pomegranate. Diosc.*

Fitch del et lith.

Reeve & Nichols imp.

TAB. DCCCLIII.

Conostylis vaginata, *Endl.*

Foliis tereti-filiformibus lævissimis scapo indiviso dense lanato vaginis membranaceis tecto longioribus, perigonio extus tomentoso basi hispido intus glabro, laciniis acutis tubo brevioribus, staminibus uniserratis. *Endl.*

Conostylis *vaginata, Endl. in Plant. Preiss. v.* 2. *p.* 23.

Hab. South-western Australia; between Manypeak and Cape Riche, Plantagant district, *Preiss* (*n.* 1383). Swan River district, *Drummond* (*n.* 444).

Twenty-eight species of *Conostylis* are enumerated in the 'Plantæ Preissianæ,' or Plants of Western and South-western Australia, alone. The present, along with the *C. juncea*, Endl., come into the fifth section, "Tribus *Conostylis junceæ*," Endlicher. It is a harsh, rigid plant, with the *stem*, or caudex as the latter author calls it, 3–4 inches long, branched at the base, and then sending out a few flexuose wiry fibres: the stem itself clothed with copious, often lacerated, membranaceous, carinated scales, intermixed with the *leaves*, which are 2–4 inches long, tereti-filiform, glabrous, rigid, with a broad membranaceous base, acute at the point, overtopping the flowers. *Flowers* several together, terminal, on short pedicels. *Perianth* densely hairy externally, the hairs plumose or rather setiferous: within, the perianth is glabrous. *Anthers* nearly sessile, attached to the base of the segments of the perianth, linear, forked at the base. *Ovary* more than half inferior. *Style* as long as the flower. *Stigma* simple.

Fig. 1. Perianth. *f.* 2. The same laid open. *f.* 3. Branched or plumose hair. *f.* 4. Stamen:—*magnified.*

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TAB. DCCCLIV.

Scyphocoronis viscosa, *A. Gray.*

Gen. Char. Scyphocoronis, *A. Gray*, nov. gen. — *Capitulum* 8–12-florum, homogamum; floribus omnibus hermaphroditis tubulosis, centrali sæpe sterili. *Involucrum* uniseriale, 5-phyllum; squamis linearibus, herbaceis, carinato-concavis, flores æquantibus. *Receptaculum* parvum, epaleaceum. *Corolla* tubo gracili, limbo cyathiformi, 5-lobo. *Antheræ* breves, basi breviter caudatæ. *Styli* rami apice subdilatati, extus hirtelli, acutiusculi. *Achænia* linearia, cylindrica, glabriuscula, callo basilari maximo inserta, pappo cyathiformi, continuo, persistente, coriaceo, integriusculo coronata.—Herba *pusilla annua, viscoso-pubescens*; caulibus *sesquiuncialibus, diffusis, apice monocephalis*; foliis *subspathulato-linearibus, oppositis et alternis.* Corolla *flavida, tubo cum margine repando pappi coronæ, glandulis pedicellatis consperso.*

Scyphocoronis viscosa, *A. Gray, in Kew Gard. Misc. ined.*

Hab. South-western Australia, *Drummond.*

From the style, this little plant should perhaps be referred to the *Asteroideæ*; but none of the *Tarchonantheæ* are homogamous, and the *Buphthalmeæ* have a paleaceous receptacle. It is evidently related to our new genus *Anthocerastes*, which has a nearly similar style, and the aspect of some small *Gnaphalieæ* or *Tarchonantheæ*. *A. Gray.*

Fig. 1. Capitulum. *f.* 2. Floret. *f.* 3. Portion of the corolla laid open. *f.* 4. Stamen:—*magnified.*

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TAB. DCCCLV.

Diotosperma Drummondii, *A. Gray.*

Gen. Char. Diotosperma, *A. Gray*, nov. gen.—*Capitulum* pauciflorum, heterogamum; floribus radii 3–4, fœmineis, vix ligulatis, disci totidem, tubulosis, abortu masculis. *Involucrum* simplex, uniseriale, e squamis 5–6 consimilibus, ovato-oblongis, concaviusculis, membranaceo-herbaceis, margine anguste scarioso ciliato-fimbriolatis, per anthesin flores æquantibus. *Receptaculum* parvum, planum, epaleaceum. *Corolla* fl. radii tubo brevissimo oblique truncato in ligulam minimam apice 2–3-denticulatam vix explanato, stylo suo brevior, persistens; disci cyathiformis, parce glanduligera; limbo 3–4-lobo. *Antheræ* ovales, connatæ, ecaudatæ. *Stylus* fl. fœm. bifidus, lobis linearioblongis divaricatis glabris; fl. masc. superne incrassatus, apice sæpius inæqualiter bilobus, lobis subulatis hispidis. *Ovarium* fl. masc. lineare, exovulatum; fl. fœm. achænio simile sed multoties minus. *Achænia* involucrum 2–3-plo superantia, ab eo prorsus discreta, obovato-subtrigona, apice bicornia, nempe explanata, obcompressa, alata; ala suberosa, crassa, arcte involuta (ut achænium subtrigonum ventre profunde sulcatum apparet), ad apicem late truncatum in auriculas hirsutas prælongas arrecto-patentes producta. *Pappus* nullus. *Cotyledones* obcompresso-planæ, leviter incurvæ.—Herba *pusilla e radice annua, multicaulis, hirsutula*; caulibus *gracilibus, diffusis, ramosis*; foliis *integerrimis, infimis obovatis oppositis, superioribus subalternis spathulatis vel sublinearibus*; capitulis *minimis, ad apicem ramorum solitariis paucisve aggregatis. A. Gray.*

Diotosperma Drummondii, *A. Gray, in Kew Gard. Misc. ined.*

Hab. South-western Australia, *Drummond.* (Received in 1850.)

Fig. 1. Capitulum of florets. *f.* 2. Ditto of fruits. *f.* 3. Hair from an auricle of the achænium. *f.* 4, 5. Achænia. *f.* 6. Corolla and style of female flower. *f.* 7. Transverse section of an achænium. *f.* 8. Seed. *f.* 9. Embryo. *f.* 10. Male floret. *f.* 11. Corolla laid open of a male floret:—*magnified.*

Fitch del et lith.

Reeve & Nichols imp.

TAB. DCCCLVI.

Dimorpholepis australis, *A. Gray.*

Gen. Char. Dimorpholepis australis, *A. Gray*, nov. gen.—*Capitulum* multiflorum, heterogamum; floribus omnibus tubulosis, paucis fœmineis marginalibus corolla tenuiore æqualiter 3-dentata, cæteris hermaphroditis corolla 4-dentata. *Receptaculum* planum, nudum. *Involucrum* hemisphæricum, imbricatum, disco æquilongum, biforme: exterius pauciseriale, e squamis scariosis ovato-lanceolatis marginibus dense setigero-fimbriatis, intimis breviter stipitatis; interius uniseriale, e squamis incrassato-cartilagineis lanceolatis sessilibus, marginibus subciliatis, apice tenui fimbriato-laceris. *Antheræ* basi bicaudatæ. *Styli* rami apice truncati. *Achænia* anguste oblonga, erostria, subcompressa, glabra. *Pappus* fl. fœm. minutus, setuloso-coroniformis, fl. hermaph. e *paleis* 3 (raro 1–2) setiformibus barbellato-fimbriatis summo apice acutissimis nudis corollam æquantibus. —Herba *pumila annua, multicaulis, tenuiter villosa, mox glabrata*; caulibus 1–3-*uncialibus, mono-oligocephalis, nunc prolifero-ramosis*; foliis *linearibus, alternis, summis capitulum sessile bracteantibus.* Involucri exterioris *squamæ albidæ*; flores *flavidi.*

Dimorpholepis australis, *A. Gray, in Kew Gard. Misc. ined.*

Hab. South-western Australia, *Drummond.* Also in the interior of Eastern Australia, at Bathurst Plains, *Fraser*; and Nangers, *Captain M'Arthur.*

Stem erect or depressed-spreading. *Heads* from 2 to 3 lines long. *Corolla* slender, the ampliate summit minutely 4-toothed in the perfect, and 3-toothed in the female flowers; in the latter more slender, but otherwise similar, and destitute of stamens. *Achænia* somewhat narrowed at the apex, 4-nerved, the slender nerves minutely serrulate, scabrous under a lens, otherwise glabrous, or nearly so. Drummond's specimen is much condensed, the stems barely an inch high. That from Captain M'Arthur is erect, proliferously branched, and about three inches high, with a foliose-bracteate head sessile in each fork of the stem. The genus is evidently allied to *Panætia*, Cass., and *Chrysodiscus*, Steetz, but different from both in the two kinds of involucre and pappus: the latter in the hermaphrodite flowers consists of narrow paleæ rather than setæ. *A. Gray.*

Fig. 1. Capitulum. *f.* 2. Outer scale of ditto. *f.* 3. Inner scale and female floret. *f.* 4. Stamen. *f.* 5. Inner floret, perfect. *f.* 6. Palea of perfect floret:—*magnified.*

L.

Fitch del et lith.

Reeve & Nichols imp

TAB. DCCCLVII.

Gentiana (§ Crossopetalum) detonsa, *Fries*; var. γ.

Caule erectiusculo, foliis oblongo-lanceolatis linearibusque margine scabriusculis, imis rosulatis spathulatis, pedunculis unifloris subsolitariis, calycis 4–5-fidi lobis plerumque inæqualibus ovatis lanceolatisque corollæ tubum campanulatum subæquantibus, corollæ cæruleæ lobis oblongis obtusis basi ciliatis superne crenatis erecto-patentibus tubo subbrevioribus, ovario elliptico breviter stipitato, stigmatibus distinctis stylo impositis, seminibus squamuloso-aculeolatis.

Gentiana detonsa, *Fries.*—*Griseb. in De Cand. Prodr. v.* 9. *p.* 101. (*cum synon.*)

β. barbata, *Fries.*—*Griseb. l. c.* (*cum synon.*)

γ. *paludosa*; foliis latioribus obtusioribus, calycis tubo 4-angulato-alato, lobis latis acutis, lobis corollinis brevi-barbatis.—G. paludosa, *Munro, MS.*

Hab. Marshes at Kisung, Thibet, *Captain Munro* (*n.* 2852).

The locality of this plant, so distant from the otherwise widely-spread known stations, together with the distinguishing characters above given, induced me at first to consider this Gentian distinct from the *G. detonsa* of Fries, itself very near, and often confounded with, the *G. ciliata*, L. The tube of the calyx is clearly winged at the angles.

Fig. 1. Corolla laid open :—*natural size.*

Reeve & Nichols imp.

TAB. DCCCLVIII.

Hewardia Tasmanica, *Hook.*

Gen. Char. Hewardia, *Hook.*, nov. gen.—*Perianthium* 6-phyllum, corollatum, stellato-patens, sepalis magnis acuminatis. *Stamina* 3, libera, basi sepalorum exteriorum inserta; *filamenta* lato-subulata, brevia; *antheræ* filamentis longiores, oblongæ, basi bifidæ affixæ, posticæ. *Ovarium* pyramidatum, obtuse triquetrum, 3-loculare, loculis duplici serie polyspermis. *Stylus* ovario brevior. *Stigmata* 3, crassa, recurvata, stylo paulo breviora. *Fructus* . . . —Herba *Tasmanica, acaulis.* Folia *numerosa, ensiformi-graminea, arida, rigida, disticha, longe equitantia,* vaginis *elongatis nitidissimis.* Scapus *foliis longior, erectus, flexuosus, bracteatus*; bracteis *inferne longe vaginantibus,* suprema *spathacea florifera.* Spatha 1–2-*flora.* Flores *speciosi, siccitate atro-purpurei, triandri.* Habitus Iridis *vel* Sisyrinchii.

Hewardia Tasmanica, *Hook.*

Hab. Heathy plains, Macquarrie Harbour, Van Diemen's Land, *R. Gunn, Esq.*

If, as we have endeavoured to show (Species Filicum, vol. ii. p. 7), the genus *Hewardia* of Mr. Smith is not based on really sound principles, but should merge, as was already suggested by Kunze, into *Adiantum*, we are sure that the many friends of that gentleman will gladly see so remarkable a plant as the present dedicated to him, one which we think none will hesitate in pronouncing a good genus, a plant, too, of Australia, a country so much explored by his dearest friend, Mr. Allan Cunningham, whose travels, as well as those of Leichardt, Mr. Heward has so well narrated.*

Our plant here figured has so entirely the habit of an Irideous plant, that we are not ashamed to say that, till we observed the superior ovary, we had considered it a *Sisyrinchium* with free stamens, or a *Libertia.* It appears to be very rare, confined to one, and that a very little frequented district, of Van Diemen's Land. Of the *Melanthaceæ,* it is perhaps most allied to *Pleea,* especially in habit and spathaceous scape; but there the anthers are introrse. In the reduced number of stamens and large showy flowers, it is very distinct from any genus. It was detected in 1842, when Mr. Gunn accompanied Sir John Franklin on an overland tour to Macquarrie Harbour,—an excursion so dangerous that it cost the life of two of the party, and threatened the lives of all.

Fig. 1. Pistil:—*magnified.*

* See Mr. Heward's valuable Memoir of the Life of Allan Cunningham, Esq., in the 'Journal of Botany,' vol. iv. p. 231.

Reeve & Nichols imp.

TAB. DCCCLIX.

Pozopsis cordifolia, *Hook.*

Gen. Char. Pozopsis, *Hook.* (Umbell. § Mulineæ).—Dioica. Masc. *Calycis* margo integer, tubus parvus cyathiformis. *Petala* patentia, obovata, unguiculata, integra, æqualia. *Stamina* 5; *filamenta* petalis duplo breviora, patenti-incurva; *antheræ* subglobosæ. *Ovarium* nanum, abortivum, calycis tubo adnatum. *Stylopodia* magna. *Styli* breves, subulati, paululum incurvi. Fœm. *Calycis* margo obscure 5-dentatus. *Petala* patentia, obovato-spathulata, integra, æqualia. *Styli* 2, breviusculi, subdivaricati. *Stylopodia* incrassata. *Stamina* nulla. *Fructus* oblongo-ovalis, tetragonus, commissura valde contracta (utroque latere profunde canaliculata). *Mericarpia* dorso compressa (hinc fructus quasi parallele biscutatus), jugis vittisque (sub jugis) 5, quorum 2 ad commissuram sitis.—Herba *Tasmanica.* Radix *descendens, crassiuscula, fibrosa.* Folia *omnia radicalia, cordata, firma, glabra, crenata, longe petiolata,* petiolis *longis patentim villosis, basi dilatata membranacea.* Scapus *solitarius, omnino aphyllus, folia superans, deflexo-villosus.* Umbella *simplex, solitaria, densa, hemisphærico-capitata.* Involucri foliola *subdecem, linearia, membranacea, umbella breviora.* Pedicelli *breviusculi, filiformes, glabri.*

Pozopsis cordifolia, *Hook.*

Hab. Summit of Mount Sorell, Macquarrie Harbour, Van Diemen's Land, *R. Gunn, Esq.*

An exceedingly pretty and very distinct Umbelliferous plant, with very much the habit of *Pozoa* of the Chilian Andes, and of which the fruit is not much at variance with that genus: but the diœcious flowers in our plant, and the many-leaved, not entire involucre, will readily distinguish it. The specimens, when dry at least, assume a rich brown hue, and the hairs of the peduncles and scape are ferruginous and very coarse. The blade of the leaf is quite glabrous, very pale, and with prominent nerves beneath.

Fig. 1. Male plant. *f.* 2. Female plant:—*natural size.* *f.* 3. Male flower. *f.* 4. Female flower. *f.* 5. Fruit. *f.* 6. Transverse section of the fruit:—*magnified.*

Fitch del et lith.

Reeve & Nichols imp.

TAB. DCCCLX.

Fritillaria Roylei, *Hook.*

Caule basi longe nudo sursum folioso uni-bi-trifloro, foliis infimis oppositis superioribus verticillatis 4–5-nisve lanceolatis attenuatis (non cirrosis), flore nutante tessellato, sepalis basi non gibbosis.

Fritillaria verticillata, *Wall. Cat. n.* 5079. *Royle, Ill. Himal. Bot. p.* 387. *t.* 92. *f.* 2. (*non alior.*)

F. cirrosa, *Don, Prodr. Fl. Nep. p.* 51 ?

Hab. Himalaya Mountains, of Kamaoun, Gurwhal, Simore, and of the Punjab; elev. 9–12,000 feet, *Dr. Wallich, Dr. Royle, Captain Munro, Major Madden, Dr. T. Thomson.*

Dr. Royle has well figured this plant, and observes, in allusion to it, "A species of this genus, sent by Mr. Moorcroft from near Ludak, and found by Mr. Inglis on the Berendo Pass, is common in the Himalayas at elevations of from 9,000 to 11,000 feet, as on Choor, Kedarhanta, and in Komaon, where the mountains are covered with snow for half the year. This has been described by Mr. Don under the name of *F. cirrosa*, but is referred by Sprengel and Dr. Wallich, and figured in the present work, tab. 92. f. 2, by the name of *F. verticillata*, Willd., a plant of Siberia and the Altai Mountains. But it is doubtful whether all included under this name belong to the same species."—I think it may be safely asserted that Dr. Royle's plant, and Dr. Thomson's and Captain Munro's, which have no cirrhi, are quite distinct from Willdenow's *F. verticillata*, well figured under that name by Ledebour (Ic. Plant. Rar. Alt. vol. i. p. 3. t. 2), and by Dr. Graham in the Bot. Mag. t. 3083, under the name of *F. leucantha*. That has cirrhose leaves, white flowers, not tessellated, and the sepals have a remarkably deep nectary forming a gibbosity at the base on the outside.

Fig. 1. Pistil:—*natural size.*

Fitch del. et lith.

Reeve & Nichols, imp.

TAB. DCCCLXI.

Sarcostemma brachystigma, *Wight.*

Aphyllum, ramis teretibus crassis, umbellis terminalibus lateralibusque, pedicellis calyceque glabris, corollæ laciniis ovatis obtusiusculis glabris, corona staminea exteriore 10-crenata interiore foliolis ovatis dorso-gibbosis gynostegium æquantibus, stigmate mutico.

Sarcostemma brachystigma, *Wight et Arn. Contrib. to Bot. of India, p.* 59. *Jacquem. Voy. Bot. p.* 107. *t.* 113. *Decaisne in De Cand. Prodr. v.* 8. *p.* 538.

Sarcostemma viminale, *Wall. MSS.* (*fide Dene.*)

Asclepias acida, *Roxb. Fl. Ind. v.* 2. *p.* 31.

Asclepias aphylla, *Roxb. Ic. ined.*

Hab. Coromandel, *Wight and Arnott.* Scinde, *Dr. Stocks.*

Roxburgh is silent in regard to any precise locality of this plant, observing, that it is a "native of hedges, forests, &c., but by no means common." Drs. Wight and Arnott give Coromandel as the habitat. Decaisne, in Jacquemont, observes "locus natalis ignotus." Dr. Stocks sends excellent specimens (accompanied by a drawing, from which our figure is made) from Scinde. We have not seen living plants, but those who have done so speak of it as a climber, though our specimens scarcely indicate that. The stems are as thick as a swan's quill, succulent, terete, jointed at the setting on of the branches, everywhere glabrous, leafless. Umbels of numerous rather small flowers, terminal and sometimes lateral. Pedicels short, and, as well as the small calyx, glabrous. Corolla rotate, the segments oval or ovate. Outer corona a 10-crenated or bluntly toothed short cup; inner of five gibbous connivent folioles, which come to a point. Fruit, which does not seem to be known to any author, consists of two horizontally spreading, cylindrical, slightly acuminated follicles.

Fig. 1. Flower. *f.* 2. Underside of ditto. *f.* 3. The double corona. *f.* 4. Corona cut through vertically. *f.* 5. Pollen-masses. *f.* 6. Follicles:—*natural size.* *f.* 7. Seed:—*all but f.* 6 *more or less magnified.*

Fitch del et lith.

Reeve & Nichols, imp

TAB. DCCCLXII.

Olearia? grandiflora, *Hook.*

Ramis foliisque subtus sericeo-tomentosis nitidis, foliis petiolatis ellipticis acutis coriaceis anguste inæqualiter dentatis reticulatis supra glabris, capitulo magno solitario in ramulo elongato paucifolio terminali, involucri turbinati squamis lineari-lanceolatis appressis sericeis inferioribus submucronatis, radii ligulis oblongis latis albis.

Hab. Adelaide, South Australia, *Charles Dutton, Esq.*

The *Compositæ-Asteroideæ*, notwithstanding the labours of Cassini, Lessing, Nees, and De Candolle, are far from being satisfactorily divided into genera. Our present plant, which I believe is quite new, might, as far as we can judge of characters from a single flower which I am unwilling to destroy, have equal claims to rank with *Eurybia* as with *Olearia*: in habit, in the large terminal solitary flowers, it agrees with neither.* The leaves are large, strongly toothed, pale green above, with depressed reticulated veins; beneath, beautifully silky and glossy with soft tomentum, and having thin prominent reticulated veins. The only specimen I possess sends out, as it were, a lateral elongated branch, with few distant and small leaves, bearing a large capitulum, with conspicuous broad white rays. The receptacle I have not been able to examine. The achenia are oblong-cylindrical, slightly hairy. The pappus has the outer hairs short, the rest as long as the tubular portion of the corollæ (both of the disc and of the circumference); the longer hairs or setæ scabrous.

Fig. 1. Floret from the disc. *f.* 2. Floret from the circumference. *f.* 3. Inner seta:—*magnified.*

* Our Herbarium possesses another plant which will rank with the present, and which may, provisionally, be thus named and distinguished:—

Olearia? *pannosa*; foliis brevissime petiolatis elliptico-ovatis coriaceis acutiusculis supra glabris subtus dense ferrugineo-pannosis, pedunculis paucis subterminalibus aphyllis ferrugineo-tomentosis superne incrassatis monocephalis, capitulo magno, involucri polyphylli squamis lanceolatis acuminatis imbricatis tomentosis, radii corollis latis purpureis.

Hab. Near the Murray River, South Australia, *Mr. Whitaker.*

Fitch del et lith.

Reeve & N[illegible]

TAB. DCCCLXIII.

Mastostigma varians, *J. E. Stocks.*

Gen. Char. Mastostigma, *Stocks*, nov. gen.—*Calyx* 5-partitus. *Corolla* rotata, 5-partita. *Corona staminea* petaloidea, cyathiformis, alte 5-lobata, gynostegium subæquans. *Antheræ* appendice membranacea (connectivo explanato) terminatæ. *Massæ pollinis* clavatæ, pendulæ. *Gynostegium* basi in stipitem brevem angustatum; *stigmate* obtuse conico, subbilobo, ultra antherarum appendices et pollinia mamillari. *Folliculi* ellipsoidei, incani, spinulis innocuis echinati. *Semina* comosa. —Herba *Brahuico-Scindica erecta, ramosa.* Folia *carnosa.* Umbellæ *interpetiolares. J. E. Stocks.*

Mastostigma varians, *J. E. Stocks.*

Hab. Rocky ground in Scinde and Beloochistan, *Dr. J. E. Stocks.*

" Herbaceum, dense incanum. *Folia* carnosa, pube brevi canopruinosa, margine undulato-crispa; *inferiora* rotundato-ovata, basi subcordata, apice obtusa vel retusa; *superiora* ovalia, acuminata. *Umbellæ* sessiles, 2–8-floræ. *Sepala* lineari-acuminata, pubescentia. *Corollæ* glabræ; *lobi* oblongi, tubo longiores, nervo medio carinato, margine replicati, apice nunc integri, nunc bifidi, patentes. *Coronæ staminеæ* lobi ovati, margine reduplicati (sinubus extrorsum prominulis), apice nunc integri, nunc bifidi, erecto-patentes. *Folliculi* rostrati, pube minuta canescentes."

" A succulently brittle plant, appearing after rain, and quickly withering. Leaves thick, very variable in outline, the upper ones crowded, curled, and wavy. Flowers sweet-smelling: the corolla and corona pure white or golden yellow. The plant is called *Moonja*, and its follicles are eaten raw by the hill-people. Its milk is abundant, and perfectly wholesome. A cynoctoneous genus, with fruit as in some species of *Glossonema.*" *J. E. Stocks.*

Fig. 1. Flower. *f.* 2. Vertical section of flower. *f.* 3. Follicle:—*magnified.* *f.* 4. Seed:—*natural size.*

Fitch del et lith.

Reeve & Nichols imp.

TAB. DCCCLXIV.

Porteria bractescens, *Hook.*

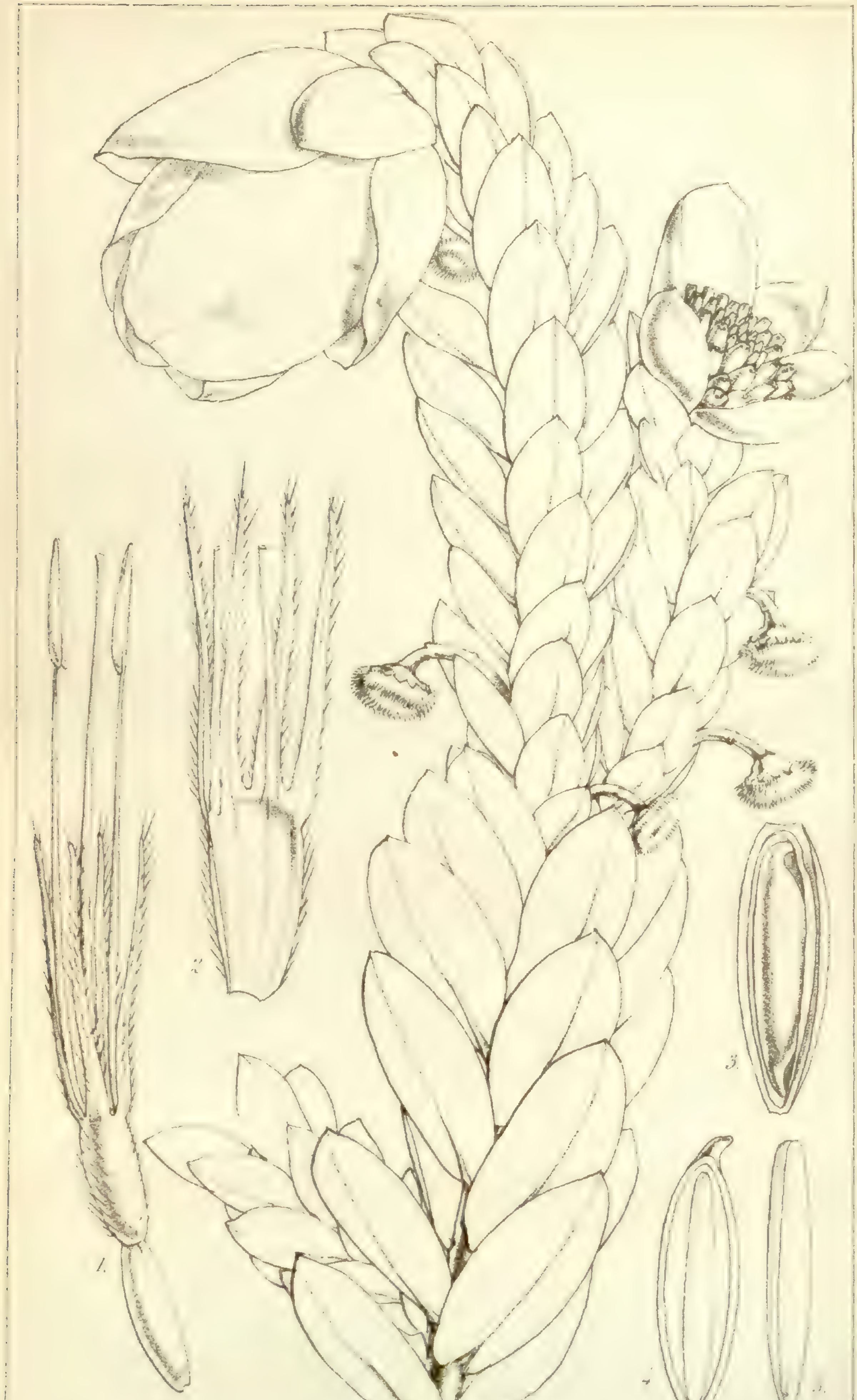
Gen. Char. Porteria, *Hook.*, nov. gen.—*Calycis tubus* (cum ovario connatus) compresso-planus, alatus; *limbus* obliquus, parvus, pateræformis, integer. *Corolla* infundibuliformis, inferne gibbosa, prope basin lateraliter calyci affixa; *limbus* 5-lobus, lobis subæqualibus rotundatis erectis. *Stamina* 3 inclusa, corollæ versus medium tubi inserta; *filamenta* subulata; *antheræ* oblongæ, dorso affixæ. *Stylus* gracilis, filiformis, inclusus. *Stigma* obtusum. *Fructus: capsula* indehiscens (seu achenium) oblonga, insigniter compressa, alata, hinc plana longitudinaliter 3-lineata, altero latere paululum convexa unilineata, abortu 1-locularis, 1-sperma; *semen* solitarium, ex apice loculi suspensum.—Frutex *Caracasanus, ramosus, pubescenti-hirsutus,* ramis *obtuse tetragonis.* Folia *opposita, sessilia, lato-lanceolata, obtusa, integerrima, subcoriacea, venosa,* ramis *costæ fere parallelis*; foliis *supremis majoribus multoque latioribus fere rotundatis bracteæformibus in axillis floriferis.* Flores *capitati, bracteati,* capitulo *pedunculato,* bracteis exterioribus *ovato-lanceolatis membranaceis,* interioribus 2 *linearibus parvis ad basin ovarii.*

Porteria bractescens, *Hook.*

Hab. Caraccas, South America, *Linden* (*n.* 424).

I name this new genus in memory of the late Sir Robert Ker Porter, long H. B. M. Consul-General at Caraccas, the native country of this plant, whence he was accustomed to send many rare plants and seeds of that fertile region to his native country. Few, on first inspection, would suspect this plant to be one of the *Valerianeæ*; its general appearance is rather that of some Onosmoid *Boraginea.* Besides that the habit differs so strikingly from any known genus of its Natural Order, the essential characters are extremely well marked. The flowers are almost entirely concealed by the many imbricating bracteas, and the very leaves themselves, which include the inflorescence, are bracteiform. The ovary and fruit are remarkably flattened, by which compression, together with the elevated lines or ridges, they almost resemble those of an Umbelliferous plant: the limb is a small, entire, or truncated, saucer-shaped membrane, inclined to one side, and the corolla is attached to its disc by one side of the base, the base itself forming a blunt spur or gibbosity. Stamens altogether included.—Our specimen is a foot and a half long, and appears to be only a portion of a much larger plant.

Fig. 1. Flower and bracteas. *f.* 2. Corolla laid open, showing the stamens and style. *f.* 3. Ovary. *f.* 4. Transverse section of an ovary below the ovule. *f.* 3. Longitudinal section of ditto:—*magnified.*



Fitch del et lith

Reeve & Nichols, imp.

TAB. DCCCLXV.

Pimelea physodes, *Hook.*

Foliis (in genere magnis) oppositis sessilibus ellipticis acutis imbricatis, capitulis terminalibus solitariis nutantibus foliis involucralibus amplissimis coloratis erectis imbricatis concavis tectis, perianthio pilosulo tubo medio constricto limbi laciniis subulatis tubum æquantibus, staminibus longe exsertis longitudine styli, capituli receptaculo villoso-lanato.

Hab. Interior of Swan River Settlement, Western Australia, *Drummond* (*n.* 424, *et Suppl. n.* 84).

I find nothing like this described in Lehmann's 'Plantæ Preissianæ,' yet I have twice received specimens from the Swan River, through Mr. Drummond. It would appear to be a large shrub with very tough bark. Our largest specimens are but branches a foot and a half long. Many of the leaves are an inch and three-quarters long and three-quarters of an inch wide, sessile on a broad base, single-veined. But the most remarkable part of the plant is the involucre, more than two inches long, its highly coloured (yellow-red) scales or leaves very large, imbricated, concave, and completely concealing the head of flowers, till the perianth falls away, then many of the involucral scales are deciduous, and the cluster of little fruits nestled on the dilated and woolly apex of the short pendulous peduncle are partially exposed to view. The old peduncles and receptacles remain on the plant, and appear lateral from innovations, as shown in our figure.

Fig. 1. Flower. *f.* 2. Superior portion of the perianth above the constriction. *f.* 3. Section of the fruit, or nut, together with its accompanying lower articulation of the perianth. *f.* 4. Section of the seed. *f.* 5. Embryo :—*magnified.*

Fitch del et lith

Day & Nicholson imp

TAB. DCCCLXVI.

Hæmodorum distichophyllum, *Hook.*

Humile glabrum totum siccitate atro-sanguineum coriaceum subacaule, foliis exacte distichis arcte equitantibus ensiformi-subulatis superne canaliculatis scapo brevioribus dimidio inferiore vaginantibus membranaceis, scapo bracteato, bracteis longe vaginantibus inflatis, corymbo solitario capitato, pedicellis bracteolatis, ovario trilobo supero.

Hab. Rare, on heathy hills, Macquarrie Harbour, Van Diemen's Land, *R. Gunn, Esq.* (*n.* 2055), *Dec.* 1846.

A very remarkable, compact-looking *Hæmodorum*, very unlike any hitherto described species of the genus, and the only one native of Van Diemen's Land. The plant is small, carnose, leathery when dry. Root of a few coarse fibres. Leaves exactly distichous, with long sheathing bases. Scape much concealed by the large ventricose bracteas. Flowers in a capitate dense corymb, almost black when dry. Sepals obovate. Stamens 3, inserted at the base of the inner sepals. Style as long as the stamens; stigma entire. Sepals remaining with the superior fruit: this latter opens through the centre of each lobe.

Fig. 1. Flower. *f.* 2. The same more expanded. *f.* 3. Fruit. *f.* 4. Ovary cut through transversely:—*magnified.*

TAB. DCCCLXVII.

Ceropegia attenuata, *Hook.*

Erecta? foliis linearibus longe gracileque attenuatis inferne angustatis junioribus pilosiusculis, pedunculo axillari solitario ex axillis foliorum supremorum unifloro, calycis lobis subulatis ciliatis patentibus, corollæ glaberrimæ tubo longe basi inflato superne dilatato, limbi lobis tubi longitudine gracilibus filiformibus apice vix dilatatis conniventibus.

Hab. Bombay; the Ghauts near Vigorna, *N. A. Dalzell, Esq.*

This appears to have sufficient characters, in the very long, narrow, attenuated leaves, and the long and very slender segments of the limb of the corolla, combined with an erect (or apparently erect) habit, to be considered a distinct species. I have been unwilling to sacrifice the only flower I possess to the examination of the interior organs. Another apparently distinct species, though allied to this, is *C. angustifolia*, Dalz. MSS., from the same country. This has a similar erect habit, broader and shorter leaves, several flowers from the apex of the stem, with shorter segments to the corolla, which are very sensibly dilated upwards. Both have the young portion of the stem and young leaves minutely hairy.

Fitch del et lith.

Reeve & Nichols, imp.

TAB. DCCCLXVIII.

Thalictrum Dalzellii, *Hook.*

Glabrum, foliis trifoliolatis (supremis subunifoliolatis), foliolis reniformi-rotundatis rigidis subtus pallidioribus elevato-reticulatim venosis basi sinu profundo acuto margine lobatis lobis inæqualiter dentatis inferioribus petiolis petiolulisque elongatis, stipulis ovato-oblongis membranaceis, paniculæ foliosæ floribus subglomeratis hermaphroditis, sepalis 4 longitudine staminum, fructu (immaturo) oblongo sulcato lævi glabro stylo uncinato terminato.

Hab. Bombay; the Ghauts near Vigorna, *N. A. Dalzell, Esq.*

With the exception of Dr. Wallich's *Th. rotundifolium* of Nepal (a country far removed from the west coast of Bombay) this has the largest leaves or leaflets of any known *Thalictrum*; but *Th. rotundifolium* is described, and the original specimens in my Herbarium confirm the character, as having simple or undivided leaves. *Th. rupestre*, Madden in Herb. nostr. (*T. saniculæforme*, DC.) from 6,500 to 7,000 feet of elevation in the mountains of Kamaoun, has nearly the same shaped leaves, but they are biternate, on very long stalks, and are of a much more membranaceous character. *Th. Punduanum*, Wall. Cat. and in Herb. nostr. (n. 3712), has more cordate or ovate leaves, with a shallow sinus at the base, or even entire and acute there, and also triternate leaves, and rough or echinate fruit. I think the present is a truly distinct species, and is probably quite confined to the localities above specified. In drying it turns of a pale green colour.

Fig. 1. Flower. *f.* 2. Immature fruit:—*magnified.*

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A.

J.D.H del. Fitch lith

Reeve & Nichols, imp.

TAB. DCCCLXIX.

A.

Agaricus (Mycena) Broomeianus, *Berk.*

Tener elatus, pileo ex hemisphærico campanulato umbonato plicato hic illic lineis transversis reticulato, stipite torto fibroso fistuloso intus ad basin concentrice zonato, lamellis angustis liberis.

Agaricus Broomeianus, *Berk. in Hook. Journ. Bot. v.* 2. *p.* 77.

Hab. On dead wood; Darjeeling, *Dr. J. D. Hooker.*

A noble species, allied to *A. pelianthinus*, but without any discoloured edge to the gills. The figures of this, and of the succeeding Sikkim Fungi, were made on the spot by Dr. Hooker, from living specimens.

Fig. A. *Agaricus Broomeianus.*

B.

Mitremyces viridis, *Berk.*

Peridio amplo stipiteque lacunoso costato cartilagineo viridibus, squamis oris margine coccineo-granulatis, sporis globosis fortiter granulatis.

Mitremyces viridis, *Berk. in Hook. Journ. Bot. v.* 3. *p.* 201.

Hab. On the ground and on dead timber; Tonglo and Sinchul, *Dr. J. D. Hooker.*

Distinguished from *M. lutescens* by its green colour, and globose rough spores.

Fig. B. *Mitremyces viridis. f.* 1. Plant:—*natural size. f.* 2. Ditto divided vertically. *f.* 3. Upper part of peridium:—*slightly magnified. f.* 4. Flocci and spores:—*highly magnified.*

C.

Agaricus (Pleurotus) verrucarius, *Berk.*

Pileo excentrico umbilicato depresso gilvo tenui subfragili humido verrucis exasperato, stipite solido firmo glabro, lamellis pallide ochraceis latiusculis decurrentibus.

Agaricus verrucarius, *Berk. in Hook. Journ. Bot. v.* 2. *p.* 82.

Hab. On dead wood; Darjeeling, *Dr. J. D. Hooker.*

Approaching the genera *Panus* and *Lentinus*, but the pileus is fleshy, and by no means tough or coriaceous. The stem is sometimes rough with processes projecting from the surface and torn backwards, but not truly scaly.

Fig. C. *Agaricus verrucarius. f.* 1 and 3. Two views of a small specimen. *f.* 2. Specimen in which the stem appears scaly from the fracture of its external coat.

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A.

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J. D. H. del. Fitch lith.

Reeve & Nichols imp.

TAB. DCCCLXX., DCCCLXXI.

A.

Boletus Emodensis, *Berk.*

Pileo primitus ovato-globoso volva universali demum deorsum circumscissa et apicem stipitis vaginante obtecto, seniore expanso hemisphærico dense squamoso-tomentoso ruberrimo, margine excedente appendiculato, stipite elongato flexuoso æquali e mycelio spongioso enato, poris flavis amplis liberis, carne leviter cærulescente.

Boletus Emodensis, *Berk. in Hook. Journ. Bot.* 1851. *p.* 48.

Hab. On the ground; Darjeeling, 7,500 feet. July and August.

Decidedly the most magnificent species of the genus, remarkable for its volva, splendid colouring, and spongy mycelium.

Fig. 1, 1. *Boletus Emodensis*:—*natural size.* *f.* 2, 3. Vertical sections.

B.

Agaricus triplicatus, *Hook. fil.*

Pileo campanulato ab umbone lævi profunde sulcato nitido sicco, margine tenui involuto, stipite elato squarruloso solido, lamellis paucis distantibus remotis.

Agaricus triplicatus, *Hook. fil. in Hook. Journ. Bot.* 1850. *p.* 50.

This beautiful Agaric, together with several other Sikkim-Himalaya species, is allied to *A. radicatus*, combining, however, in some measure, the characters of *Marasmius* with the habit of *Heliomyces*.

Fig. 1. Upper part of *Agaricus triplicatus*:—*natural size.* *f.* 2. Vertical section of ditto.

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B.

2.

Reeve & Nichols. imp.

TAB. DCCCLXXII.

A.

Strobilomyces montosus, *Berk.*

Pileo verrucis paucis floccosis pyramidatis montoso nigro-fusco, interstitiis amethystinis, stipite concolore squamoso, poris subadnatis fuscis, ore luteo.

Strobilomyces montosus, *Berk. in Hook. Journ. Bot.* 1851. *p.* 78.

Hab. On dead wood and on the ground; Sikkim-Himalaya, 7,500 feet. September.

This and another magnificent species are the representatives of *Boletus strobilaceus* in the Sikkim Alps. The large warts, with the amethyst-coloured interstices, make it a very striking fungus.

Fig. 1. Young plant:—*natural size.* *f.* 2. Section of full-grown specimen.

B.

Hypocrea grossa, *Berk.*

Receptaculo erecto crasso sursum breviter diviso miniato opaco, lobis obtusis, intus pallide stramineo, contextu lento radiato, peritheciis irregularibus confluentibus.

Hypocrea grossa, *Berk. in Hook. Journ. Bot.* 1851. *p.* 306.

Hab. On rotten wood; Darjeeling, 7–8,000 feet. July. Very rare.

A very fine addition to the genus *Hypocrea*, now separated from *Sphæria*. It may possibly have been previously overlooked, from its resemblance to young specimens of *Polyporus lucidus*.

Fig. 1. Two plants of *H. grossa*:—*natural size.* *f.* 2. A plant divided vertically.

Frederic Reeve imp

TAB. DCCCLXXIII.

Centrosolenia glabra, *Hook.*

Prostrata repens epiphyta tota glabra, foliis oppositis æqualibus sublonge petiolatis obovato-lanceolatis acuminatis carnosis integerrimis vel superne serratis, pedunculis axillaribus solitariis ebracteatis petiolum superantibus unifloris, calyce profunde 5-partito laciniis lineari-lanceolatis, corollæ (albæ) tubo infundibuliformi deorsum in calcar inflatum obtusum terminante limbo patente subæquali 5-lobo lobis rotundatis subundulatis integerrimis, glandula hypogyna magna solitaria.

Hab. West Indies; Trinidad, on trees, *Mr. W. Purdie.*

This was sent, a living plant, from Trinidad by Mr. Purdie, and flowered in the stove of the Royal Gardens in February 1848. It seems to me to have all the essential characters of Mr. Bentham's *Centrosolenia,* and sufficiently of the habit of the species we are already acquainted with. All are natives of tropical America. The projecting, obtuse, inflated spur at the base of the corolla occasions the inferior lobe of the calyx to be bent down or back, whilst all the other segments are erect. Here the hypogynous gland is solitary and very large: in the two *Centrosoleniæ* figured in the Bot. Mag. tab. 4552 and 4611, there are two opposite glands at the base of the germen.

Fig. 1. Flower. *f.* 2. Stamens and spur of the corolla. *f.* 3. Pistil. *f.* 4. Section of ovary and of the hypogynous gland:—*magnified.*

Fitch, del et lith.

Frederic Reeve, Imp.

TAB. DCCCLXXIV.

Conradia neglecta, *Hook.*

Subacaulis, foliis obovato-oblongis sublanceolatisve acutis grosse inæqualiter serratis glabris basi in petiolum brevem sub lente transverse scabrum resinoso-furfuraceum, costa dorso similiter scabra furfuraceaque, pedunculis axillaribus subaggregatis bracteolatis unifloris folio multoties brevioribus, calycis segmentis subulatis corollæ tubum æquantibus, corollæ oblique campanulatæ lobis inæqualibus subrotundatis glanduloso-pilosis.

Hab. Rocks, Cave Valley, St. Anne's and Clarendon, Jamaica, *Mr. W. Purdie.*

Abundant in the above localities, and perhaps elsewhere in Jamaica, yet the species never appears to have been taken up by any author. The drawing is made from a cultivated specimen in the stove of the Royal Gardens, raised from seeds sent home by Mr. Purdie. The young leaves are very resinous, and the petioles and costa at the back of the leaf, when seen under the microscope, are found to be marked with transverse rugosities or elevations, and more or less clothed with a resinous substance which breaks off in scales. This plant belongs, I presume, to the true *Conradiæ*, not to the first division or groupe in De Candolle, which constitutes the genus *Pentaraphia* of Dr. Lindley; but the distinguishing characters of which I by no means understand.

Fig. 1. Flower. *f.* 2. Pistil. *f.* 3. Corolla laid open. *f.* 4. Ovary cut through transversely:—*magnified.*

Fitch del et lith.

Frederic Reeve, imp.

TAB. DCCCLXXV.

Lindenbergia urticæfolia, *Lehm.*

Annua erecta vel adscendens villosa, foliis longe petiolatis ovatis floralibus conformibus, floribus solitariis axillaribus, corolla calyce vix triplo longiore ovarioque? glabris. *Benth.*

L. urticæfolia, *Lehm. in Link et Otto Abbild. t.* 48. *Benth. in De Cand. Prodr. v.* 10. *p.* 377.

Stemodia ruderalis, *Vahl, Symb.* 69. *Roxb. Fl. Ind. v.* 3. *p.* 94.

A weed-like plant in its stems and foliage; but the flower, though small, and resembling a *Linaria* in shape, is very handsome when recent and seen slightly magnified. The calyx is clothed with long and slender glandular hair: the corolla is rich yellow, the tube tinged with red, and a deep red spot is seen just within the nearly-closed faux. Mr. Bentham describes the ovary as glabrous; in our plant it is quite silky. The species is a native of India, where it seems to be of common occurrence. Seeds were sent by Dr. Hooker to the Royal Gardens, and from the living plant our figure is made. It wants colour to do justice to the flower.

Fig. 1. Flower. *f.* 2. Corolla laid open. *f.* 3. Upper portion of the stamen showing the separated anther-cells. *f.* 4. Pistil:—*magnified.*

TAB. DCCCLXXVI.

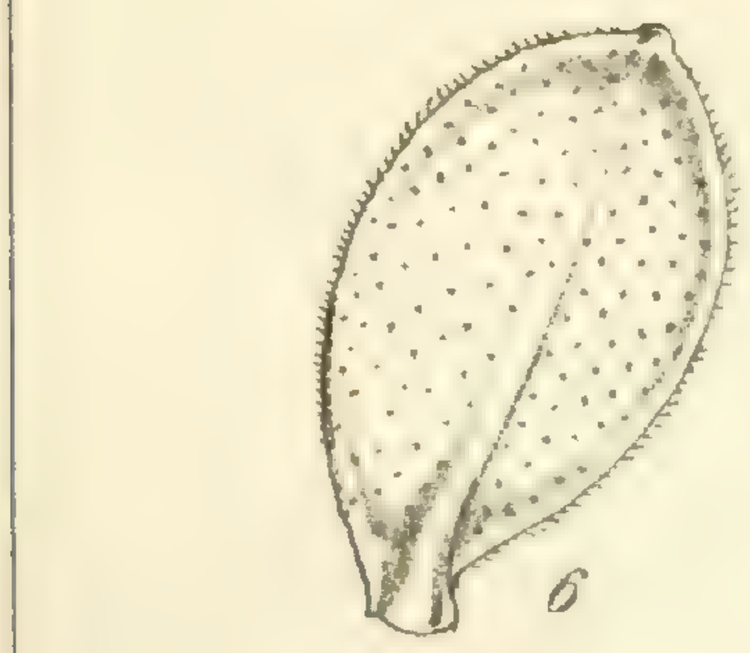
Anemia trichorhiza.

Caudice subrepente crasso pilis longis rufis pulcherrime articulatis crinito, frondibus *sterilibus* anguste ovatis pinnatis densissime ferrugineo-lanatis supra demum glabratis coriaceis pinnis pinnatifidis laciniis rotundatis, *fertilibus* lanceolatis bipinnatifidis totis ferrugineo-lanatis brevi-stipitatis patentim divergentibus, stipitibus universalibus fronde brevioribus lanatis.

Hab. Dry rocks, summit of Sierra de Natividade, Brazil. Feb. 1841. *G. Gardner* (*n.* 4080).

A very distinct species of *Anemia*, remarkable for the very long, rich, chestnut-brown, jointed hairs at the origin of the stipites, and no less for the very woolly character of the whole fronds when young, and for the two sterile fronds not rising erect and approximating, as it were, as in other *Anemiæ*, but divaricating so as to stand nearly on the same plane with the sterile frond: in this respect showing a near affinity with *Trochopteris*, Gardner; but there the sterile and fertile fronds are united into one, not stipitate, but constituting lobes of the same frond. In *Trochopteris*, too, the habit is very peculiar.

Fig. 1. Portion of a fertile frond with capsules. *f.* 2. Capsule: —*magnified.*



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TAB. DCCCLXXVII.

Myrsine myrtoides, *Hook.*

Ramis numerosis compactis, foliis copiosis brevissime petiolatis obovato-ellipticis coriaceis glabris recurvato-patentibus acutis ciliatis supra nitidissimis nudis subtus resinoso-punctatis, floribus axillaribus subsessilibus glomeratis tetrameris, staminibus inclusis, corollæ lobis oblongis.

Hab. Volcano of Pasto, New Grenada, elev. 12,000 feet, *Prof. Jameson.* Mountains of Caraccas, *Linden* (*n.* 958).

This plant has so much the habit of some of the *Myrtaceæ*, that, till the flowers are inspected, it might very well be taken for a *Myrtus* or an *Eugenia*. The flowers and immature fruit, however, clearly prove it to be a *Myrsine:* and its nearest affinity, though it be abundantly distinct, is with *M. dependens*, Sprengel and De Candolle (*M. ciliata*, H.B.K.). The latter species has obovate, retuse leaves, wrinkled on the surface when dry, and the branchlets are clothed with ferruginous down. The present species I have only received from Professor Jameson and Mr. Linden.

Fig. 1. Leaf. *f.* 2. Flower. *f.* 3. Corolla laid open. *f.* 4. Pistil. *f.* 5. Vertical section of the ovary, with ovules sunk in the placenta. *f.* 6. Transverse section of the placenta:—*magnified.*

1.

2.

Frederic Reeve, imp

TAB. DCCCLXXVIII.

Populus trichocarpa, *Torr. et Gray.*

Foliis sublonge petiolatis cordato-triangularibus serratis glabris subtus pallidis minute reticulatim venosis, amenti fœminei squamis laciniatis villosis, ovariis globosis dense tomentosis, stigmatibus insigniter basi lobato-dilatatis.

Populus trichocarpa, *Torr. et Gray, MS.*

Hab. Santa Clara River, near Beneventano, California, ——?

The specimen here figured was kindly communicated to me by Messrs. Torrey and Gray, as a recent discovery in California; but I am unacquainted with the name of the discoverer, and I am ignorant whether or not it has yet been published in America.

Fig. 1. Portion of an amentum, with perianth and female flower, subtended by the scale. *f.* 2. Scale separated:—*magnified.*

Fitch, del et lith.

Frederic Reeve, imp.

TAB. DCCCLXXIX.

Eucalyptus populifolia, *Hook.*

Ramis gracilibus teretibus, foliis longe petiolatis subrhombeo-orbicularibus obtusissimis basi subcuneatis tenue penninerviis nervis obliquis approximatis margine paulum incrassatis, pedunculis axillaribus solitariis vel foliis delapsis subpaniculatis subquinquefloris, fructu (vix maturo) turbinato lævi, pedicellis teretibus.

Hab. Wide Bay district, North-eastern Australia, *Mr. Bidwill* (*n.* 76).

The lid or operculum of the calyx I have not seen:—but the leaves alone will readily distinguish this species from any with which we have been hitherto acquainted.

Fig. 1. Fruit:—*magnified.*

TAB. DCCCLXXX.

LORANTHUS LONGIFOLIUS, *Hook.*

Ramis teretibus, foliis lineari-ensiformibus (pedalibus) coriaceis glabris subtri-quinquenerviis obtuse acuminatis basi in petiolum attenuatis, umbellis candelabriformibus pedunculatis axillaribus, foliis multoties brevioribus, floribus pentandris, ovario (cum calyce) obconico, petalis apice spathulatis, staminibus longitudine petalorum stylum subæquantibus.

HAB. On trees, Wide Bay district, North-eastern Australia, *Mr. Bidwill.*

This is probably pendent from the branches of trees on which it is an epiphyte: assuredly the leaves, often more than a foot long, are drooping. The umbel or cymes are quite candelabriform, and the upper side at the apex of each pedicel is hollowed out into a cup or socket, as it were to receive the flower. It is, perhaps, the most striking species of this very extensive genus.

Fig. 1. Flower:—*magnified.*

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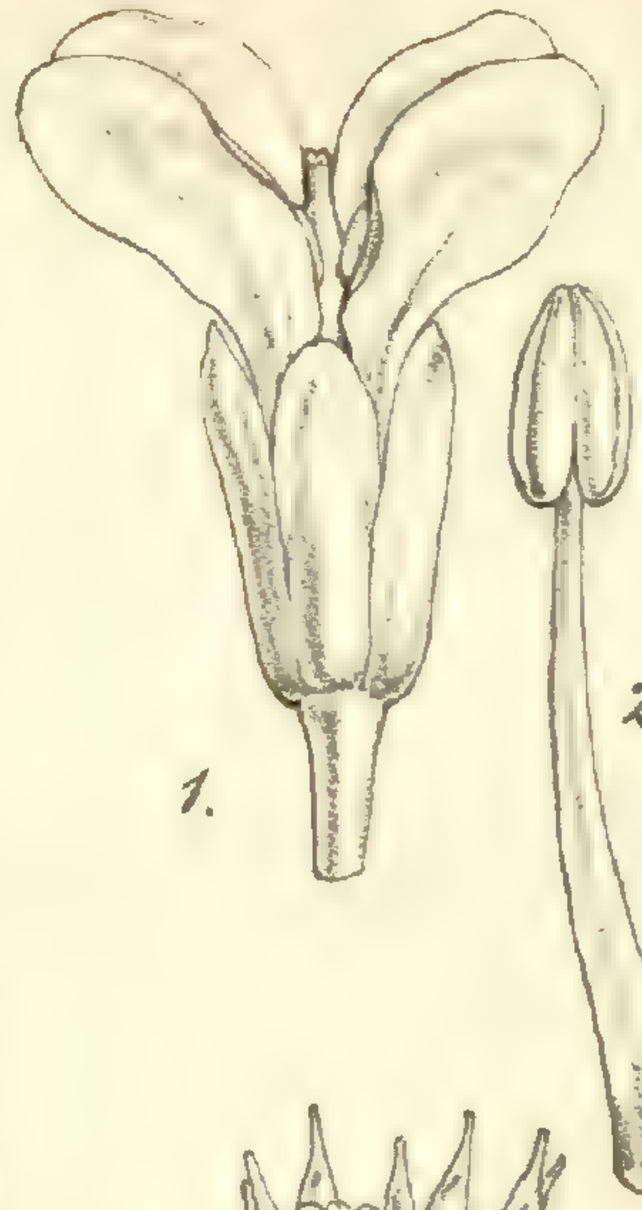
TAB. DCCCLXXXI.

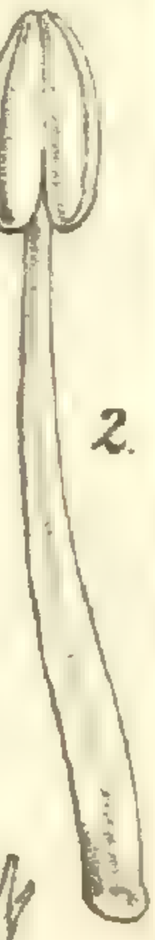
Fagus Gunnii, *Hook. fil.*

Fruticosa suberecta v. prostrata, ramis rigidis tortuosis intertextis, ramulis foliisque subtus secus nervos pilosis, foliis deciduis plicatis brevissime petiolatis late ovato-rotundatis basi subobliquis obtusis emarginatisve crenato-serratis, petiolis stipulis subulatis basi gibboso-inflatis suffultis, cupulis involucriformibus profunde 4-partitis laciniis subæqualibus linearibus integris dorso simplici serie lamellatis, lamellis inæqualiter sinuato-crenatis, nucibus glaberrimis orbiculari-oblongis late alatis.
Hab. Summit of Mount Olympus, Van Diemen's Land; alt. 4500–5000 feet, *R. Gunn, Esq.*

A most interesting deciduous-leaved Beech, bearing an extraordinary resemblance to *F. antarctica* of Fuegia, and differing mainly in the curious stipules (fig. 4), simply coarsely crenate leaves, and the less fimbriate lamellæ of the cups. The only other Tasmanian species, *F. Cunninghami*, Hook. (Lond. Journ. Bot. vol. ii. p. 152. f. 7) has coriaceous persistent foliage. In Fuegia, New Zealand, and Tasmania, there are two divisions of *Fagus*, one with deciduous, the other with persistent leaves: the species of each division bear a very strong resemblance to one another in all the localities. Mr. Gunn says that the present shrub forms a dense almost impenetrable scrub below the basaltic columns which crown Mount Olympus. The individual plants are 5–8 feet high, with branches so twisted and bent in all directions by the weight of the winter's snow, that it is not easy to force one's way through. Mr. Joseph Milligan has found a *Fagus*, probably the same, on the top of a mountain near Macquarrie Harbour. *J. D. H.*

Fig. 1. Stipule, with its inflated base. *f.* 2, 3. Cupules. *f.* 4, 5. Nuts:—*all magnified.*





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TAB. DCCCLXXXII.

Cardamine radicata, *Hook. fil.*

Glaberrima foliosa, rhizomate crasso valde elongato diviso, foliis radicalibus perplurimis petiolatis coriaceis obovato-spathulatis obtusis grosse lobato-serratis caulinis brevius petiolatis, caulibus floriferis erectis foliis vix longioribus fructiferis subelongatis foliosis, floribus parvis albis, sepalis lineari-oblongis obtusis, petalis spathulatis, siliquis erectis strictis pedicellatis anguste elliptico-lanceolatis stylo breviusculo terminatis, valvis membranaceis planis subenerviis, seminibus obovatis compressis impunctatis.

Hab. Summit of Mount Olympus, Van Diemen's Land; alt. 5000 feet, *R. Gunn, Esq.*

Mr. Gunn says of this curious species, "A number of procumbent brittle branches spring from one root, and have no leaves except at the extremities. A large bed of snow lay at Midsummer in a hollow close to the plants which are found between the basaltic columns that crown the mountain." As a species, this is most distinct: it rather resembles an *Arabis* than a *Cardamine* in habit, but its pod is that of the latter genus. The procumbent rhizomata are as thick as the little finger, and 6–8 inches long. *J. D. H.*

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Stamen. *f.* 4. Siliqua. *f.* 5. Seed. *f.* 6. Embryo:—*all magnified.*

Fitch, del et lith.

F. Reeve, imp.

TAB. DCCCLXXXIII.

Rhododendron Lowii, *Hook. fil.*

Frutescens v. subarboreum, totum glaberrimum, foliis amplis coriaceis planis breve et crasse petiolatis obovatis subacutis infra medium angustatis subpanduriformibus ima basi truncatis cordatisve, nervo medio lato crasso, capitulis terminalibus multifloris, bracteis lineari-elongatis membranaceis, pedunculis validis uncialibus, calyce obsoleto corollæ flavæ tubo subelongato cylindraceo superne campanulato lobis 5 rotundatis retusis patentibus, staminibus 10 inclusis, ovario puberulo 5-loculari.

Hab. Borneo; Kini Balu, alt. 8000 feet, *H. Low, Esq.*

Mr. Low's discovery of thirteen species of *Rhododendron*, during an ascent of only 8000 feet on a mountain that rises to 14,000, is a most remarkable and interesting fact to the botanist and horticulturist. Till within a very few years this genus had been thought almost peculiar to temperate and cold climates, an error first disproved by Mr. Low, and exposed by Dr. Lindley in the Hort. Soc. Journal, vol. iii. p. 82, where Bornean species are figured from under the equator itself, and growing at the level of the sea. To this essay I refer for some excellent remarks on the climate, etc., of the regions which the Bornean species of low elevations inhabit. *R. Lowii* resembles the *R. Brookeanum*, Low, there represented; but the leaves are differently shaped, being obovate, much larger, nearly a span long, and having a very peculiar broad nerve, like some species of *Loranthus*: the lobes of the corolla, too, are much shorter and broader, not revolute, and nearly as long as the tube, as in *R. Brookeanum*. Mr. Low describes this as a magnificent shrub, 15–20 feet high. *J. D. H.*

Fig. 1. Stamen. *f.* 2. Ovarium. *f.* 3. Transverse section of the same:—*all magnified.*

Fitch, del et lith.

F. Reeve, imp.

TAB. DCCCLXXXIV.

Rhododendron verticillatum, *Low.*

Glaberrimum v. ramulis junioribus costaque folii puberulis, ramis robustis, foliis subverticillatis breve et crasse petiolatis valde coriaceis late obovato-oblongis obovatisve obtusis basi cordatis marginibus planis recurvisve utrinque creberrime punctulatis, capitulis laxe 6–8-floris, pedunculis squamulosis flore æquilongis, calyce discoideo integro, corolla campanulata tubo brevi limbi lobis 5 rotundatis, staminibus 10, ovario squamuloso 5-loculari.

R. verticillatum, *Low in Hort. Soc. Journal, v.* 3. *p.* 86, *and fig. p.* 87.

Hab. Borneo; mountainous regions, alt. 4000–8000 feet, *H. Low, Esq.*

I cannot distinguish Mr. Low's Kini Balu specimens gathered at 8000 feet, from those figured in the Hort. Soc. Journal, except that the latter have larger leaves and smaller flowers. Mr. Low calls some of his specimens *R. verticillatum?* and others *R. intermedium*, considering the latter as possibly a variety of *R. buxifolium*, a much smaller-foliaged plant, still with toothed calyx-lobes. The leaves of *R. verticillatum* vary both in size and shape, being oblong, obovate, or sometimes almost obcordate, with an emarginate apex, and occasionally a mucro. It resembles a good deal the *R. retusum*, Br. and Bennet; but the leaves are never so regularly retuse, and the flowers are very different. *J. D. H.*

Fig. 1. Flower. *f.* 2. Stamen. *f.* 3. Ovarium. *f.* 4. Margin of a leaf:—*all but fig.* 1 *magnified.*

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TAB. DCCCLXXXV.

Rhododendron rugosum, *Low.*

Fruticosum, ramis robustis ramulis petiolis pedunculis foliis junioribus utrinque et senioribus subter tomento furfuraceo squamuloso dense obsitis, foliis crasse petiolatis valde coriaceis ovatis v. oblongo-ovatis acutis obtusisve rugosis nervis superne profunde impressis subtus prominentibus, capitulis laxe 8–12-floris, floribus inter minoribus pendulis, pedunculis gracilibus flore subnutante æquilongis longioribusve, calyce parvo discoideo obsolete lobato, corolla campanulata, tubo cylindraceo extus puberulo, lobis 5 rotundatis retusis patulis, staminibus 10, ovario pubescente 5-loculari.

R. rugosum, *Low, MS.*

Hab. Borneo; on Kini Balu, alt. 7000–8000 feet, *H. Low, Esq.*

In the foliage this resembles closely the *Rhododendron Edgeworthii* of the Himalaya mountains; but the tomentum which clothes the under surface of the leaves especially is of quite a different nature, being here formed of pedicellate discoid fimbriated scales, similar except in being pedicellate to what are frequent in the genus. The flowers have no calyx, and in this important character also differ from *R. Edgeworthii.* Mr. Low describes the corolla as rose-purple, and the plant as forming a shrub 5–8 feet high. *J. D. H.*

Fig. 1. Stamen. *f.* 2. Ovarium. *f.* 3. Transverse section of the same. *f.* 4, 5. Pedicellate scales:—*all magnified.*

Fitch del et lith

TAB. DCCCLXXXVI.

Rhododendron acuminatum, *Hook. fil.*

Fruticosum totum lepidoto-squamosum, ramis robustis, petiolis crassis, foliis elliptico-ovatis longe acuminatis marginibus recurvis basi rotundatis v. breviter cordatis crassis et rigidis rugosis superne squamatis glabratisve bullatis nervis profunde impressis subtus dense lepidotis costa venisque crassis prominentibus, capitulis laxe 10–15-floris, floribus paucis pendulis, calyce brevi discoideo, corollæ tubo cylindrico lepidoto limbi lobis 5 rotundatis brevibus, staminibus 10, ovario dense lepidoto 5-loculari.

Hab. Borneo; on Kini Balu, alt. 6000–8000 feet, *H. Low, Esq.*

Very similar to *R. rugosum* in general appearance, habit, and especially in foliage; but the flowers are much smaller, with a longer cylindrical tube and shorter lobes; and the tomentum of the *R. rugosum* is here replaced by densely packed appressed scales, which fall off the upper surface of the older leaves. Mr. Low remarks that it forms a shrub 4–10 feet high, with scarlet pendulous flowers. The leaf-buds are covered with almost woody imbricating scales, which are lepidote where exposed to the atmosphere: they are also clothed with a silky down in a young state. *J. D. H.*

Fig. 1. Stamen. *f.* 2. Ovarium. *f.* 3. Transverse section of the same. *f.* 4, 5. Scales:—*all magnified.*

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TAB. DCCCLXXXVII.

Rhododendron ericoides, *Low.*

Fruticulus glaberrimus erectus virgatus, ramis fastigiatis superne foliosis inferne cicatricatis verrucosis, foliis parvis ericoideis suberectis imbricatis anguste lineari-lanceolatis obtusis obscure crenatis crassis et coriaceis glanduloso-punctatis in petiolum brevem crassum cum caule articulatum angustatis, floribus nutantibus terminalibus solitariis v. binis, pedunculis folio æquilongis calycibus corollaque glandulosis, calyce 5-partito lobis erectis linearibus obtusis corollæ tubo cylindraceo multoties brevioribus, corollæ lobis 5 brevibus rotundatis eroso-ciliatis, staminibus 10, ovario lepidoto 5-loculari. *J. D. H.*

Hab. Borneo; Kini Balu, at an elevation of 8000 feet and upwards, *H. Low, Esq.*

The most remarkable species of the genus I have ever seen, and quite unlike any hitherto described. Mr. Low's manuscript name of *ericoides* conveys a very good idea of its general character; he describes it as a shrub which varies from two to eight feet high, according to exposure. The flowers appear from dried specimens to be scarlet. *J. D. H.*

Fig. 1. Flowers. *f.* 2. Stamen. *f.* 3. Calyx and ovarium. *f.* 4, 5. Leaves:—*all magnified.*

F. Reeve, imp.

TAB. DCCCLXXXVIII.

Nepenthes villosa, *Hook. fil.*

Foliis junioribus subtus pedunculis petiolis racemisque pilis patentibus (siccitate rufis) dense villosis, folii lamina (petiolo dilatato) lineari-oblonga glabrata juniore margine villoso, cirrho elongato valido dense villoso, pedunculo elongato, racemo multifloro fœmineo breviusculo masculo elongato, perianthii foliolis lineari-oblongis obtusis intus glandulosis dorso villosis, antheris 10–12, ovario late oblongo velutino, stigmatibus sessilibus.

Hab. Borneo; Kini Balu, alt. 7000–8000 feet, *H. Low, Esq.*

In his ascent of Kini Balu, Mr. Low procured several magnificent species of *Nepenthes,* of which, however, he was able to preserve only one, the subject of the present plate, which differs from any previously described, in its densely villous inflorescence, young leaves and cirrhi. The specimens have unfortunately no pitchers, which renders it doubtful whether they are identical with a superb species gathered on the same occasion, the pitchers of which hold a pint of fluid. This plant grows amongst grass and granite rocks. *J. D. H.*

Fig. 1. Female flower:—*magnified.*

Fitch del et lith.

F Reeve imp.

TAB. DCCCLXXXIX.

Phyllocladus hypophylla, *Hook. fi*

Arbor erecta, foliis (phyllodiis) petiolatis anguste ovatis rhombeo-ovatisve basi oblique cuneatis crenato-lobatis lobis oblongis obtusis crenulatis subtus glaucis superioribus floriferis obovato-cuneatis profunde emarginatis bilobisve lobis lobulatis, floribus fœmineis in sinu phyllodiorum supremorum sessilibus rarius in ramulis terminalibus, spiculis brevissimis 2–3-floris.

Hab. Borneo; Kini Balu, alt. 8000 feet and upwards, *H. Low, Esq.*

The *Rhododendrons* of Kini Balu and the coasts of Borneo demonstrate in a remarkable manner the prevalence of northern forms of plants in that island; but the present genus is one instance of its equally possessing plants that have hitherto been considered to be eminently typical of a rather high southern latitude. Two species of *Phyllocladus* alone were previously known, a Tasmanian and a New Zealand one (though I believe we have two species from the latter island), but the genus was not known to exist north of the parallel of 36° until Mr. Low detected the present species, which, like its congeners, never attains a great size, but forms a small tree 10–30 feet high. Thus to find the shrubby and arborescent genera of the opposite temperate zones meeting on a mountain within a few degrees of the equator, is a most interesting discovery.

The very general tendency, but not constant habit, in this species, of producing its flower and fruit in the notch of one of the apparent leaves, demonstrates the latter to be made up of many true leaves, which are normally distichous, as in its ally the Yew, and are united together by their margins. *J. D. H.*

Fig. 1. Flower-bearing phyllodium. *f.* 2. Young ovule:—*magnified.*

F. Reeve, imp.

TAB. DCCCXC.

Rhododendron buxifolium, *Low.*

Frutex erectus glaberrimus plus minusve lepidotus, ramis robustis foliosis, foliis (parvis) plurimis sparsis (non verticillatis) crasse petiolatis oblongis elliptico-ovatisve obtusis subenerviis basi rotundatis v. obscure cordatis costa crassa marginibus obsolete crenulatis superne impresso-punctatis subtus squamulosis crassis coriaceisque, capitulis laxe 8–12-floris, pedunculis folio brevioribus, calyce parvo discoideo obscure 5-lobo v. lobis 1–3 in dentes subulatos productis, corolla campanulata extus lepidota lobis tubo brevioribus rotundatis patulis, staminibus 10, ovario lepidoto 5-loculari.

Hab. Borneo; Kini Balu, alt. 8000 feet and upwards, *H. Low, Esq.*

When we first received *Rhododendrons* from Borneo, we regarded the island whence they came as partaking, in respect of this genus, of the characteristics of a north temperate zone; but now that species not only multiply in extraordinary profusion, but are found to frequent all elevations and all localities from the sea-coast inland, we are bound to reverse this, and consider that the Malay Archipelago is the head-quarters of the genus, and all other species are outlying ones. Of the vegetation of Borneo we know just nothing at all; not fifty species of plants have been sent home from it, and yet twelve or fourteen of these are *Rhododendrons!* a genus whose name we associate with hardy evergreens. The present species approaches *R. verticillatum*, Low, very closely indeed, but Mr. Low considers it distinct, and his MS. name is retained here. It differs in the smaller, less obovate, and longer petioled leaves, and larger flowers and calyx, which, like that of the Himalayan *R. cinnabarinum*, is sometimes a simple disc, but at others has this organ lobed, and one or more of these lobes produced into a sharp tooth. *J. D. H.*

Fig. 1. Stamen. *f.* 2. Ovarium. *f.* 3. Portion of a leaf:—*all magnified.*

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TAB. DCCCXCI.

Vaccinium buxifolium, *Hook. fil.*

Frutex erectus glaberrimus, ramis robustis foliosis, foliis breve petiolatis oblongis obtusis integerrimis basi rotundatis crassis coriaceis enerviis subtus punctatis, racemis plurimis erectis strictis multifloris, floribus 2-bracteolatis breve et crasse pedicellatis, calycis tubo turbinato limbi lobis rotundatis marginibus glandulosis, corolla globoso-ampullacea crassa ore contracto limbi lobis brevibus late ovatis recurvis, filamentis pilosis, antheris inclusis breviter oblongis loculis in tubulos lente recurvos apice apertos productis dorso breviter 2-setosis, stylo recto incluso, ovarii apice piloso.

Hab. Borneo; on Kini Balu, alt. 7500 feet, *H. Low, Esq.*

A pretty shrub, varying, according to Mr. Low, from 18 inches to 4 feet high, and bearing a profusion of apparently white blossoms. The leaves are very thick and coriaceous, obscurely veined below, and there covered with scattered black dots. The tube of the corolla is much thickened where most swollen. *J. D. H.*

Fig. 1. Flower. *f.* 2. Stamen. *f.* 3. Ovarium. *f.* 4. Leaf:—*all magnified.*

4

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Fuch. del et lith.

TAB. DCCCXCII.

Vaccinium coriaceum, *Hook. fil.*

Fruticosum glaberrimum, ramis cicatricatis verrucosis, foliis parvis patulis breve petiolatis lineari-oblongis obtusis basi subangustatis marginibus subrecurvis obscure et remote crenulatis crassis coriaceis aveniis superne nitidis subtus opacis, racemis brevibus 8–10-floris, floribus parvis breve et crasse pedicellatis, calycis tubo turbinato lobis rotundatis obtusis marginibus glandulosis, corollæ tubo brevi cylindraceo subventricoso limbi lobis patulis obtusis, filamentis crassiusculis pilosis, antherarum loculis breviter ovatis dorso 2-aristatis superne in tubulos lente recurvos apice apertos productis, ovarii apice basique styli puberulis.

Hab. Borneo; on Kini Balu, alt. 8000 feet, *H. Low, Esq.*

Closely allied to the *V. buxifolium*, Tab. 891, but smaller in all its parts, with more slender, warted branches, smaller, narrower leaves, crenate at the margin, and not dotted beneath, shorter and fewer-flowered racemes of less ventricose flowers. *J. D. H.*

Fig. 1. Flower. *f.* 2. Stamen. *f.* 3. Ovarium. *f.* 4. Leaf: —*all magnified.*

1.

2.

3.

4.

Fitch, del et lith.

F Reeve, imp.

TAB. DCCCXCIII.

Leptospermum recurvum, *Hook. fil.*

Fruticulus ramosissimus prostratus v. erectus, ramis creberrime cicatricatis, ramulis sericeo-pubescentibus, foliis parvis patulis recurvisque obovatis obovato-spathulatisve apicibus subacutis marginibusque recurvis superne convexis medio sulcatis subtus dense sericeis glabratisve, floribus (pro planta) majusculis ramulis terminalibus, fructu depresso medio tubo calycis incrassato cincto, valvis 5 superne liberis.

Hab. Borneo; Kini Balu, abundant, from 7000–8500 feet, whitening the top of the mountain, *H. Low, Esq.*

This, like its Australian congeners, is probably an extremely variable plant. Some of Mr. Low's specimens are erect, others prostrate; the leaves are very coriaceous, all more or less recurved both as to their apices and margins, glabrous or densely silky below, glabrous above, with often white silk along the midrib. *J. D. H.*

Fig. 1. Flower. *f.* 2. Stamen. *f.* 3. Ovarium. *f.* 4. Fully formed capsule:—*all magnified.*

Fitch, del. et lith.

TAB. DCCCXCIV.

Diplycosia ciliolata, *Hook. fil.*

Fruticulus parce ramosus, ramis ramulisque hispido-strigosis foliosis, foliis confertis patulis anguste elliptico-lanceolatis acuminatis in petiolum brevem angustatis ciliolatis, floribus axillaribus solitariis breviter pedicellatis folio æquilongis, bracteis 2 connatis brevibus concavis calyceque glanduloso-ciliatis, calyce ad medium 5-lobo lobis acutis corollæ tubum æquantibus v. brevioribus, ovario piloso basi disco 10-lobo cincto, stigmate simplici.

Hab. Borneo; Kini Balu, alt. 6000 feet, *H. Low, Esq.*

The only three species of this genus, hitherto described, are natives of the woods of Java, and were made known to us through M. Blume's 'Bijdragen.' Of these the two species in Herb. Hook. are very much larger plants than this, with scattered, broader leaves, but the structure of the flowers is the same in all. Mr. Low's specimens of *D. ciliolata* are not in fruit, and hence I am ignorant whether the calyx becomes baccate or no; this is, however, so unimportant a character in *Gaultheria* (some New Zealand species of which have fleshy baccate calyces and unaltered calyces on the same raceme of ripe fruit), that this alone would not afford a sufficient character for separating the present plant from Blume's genus of *Diplycosia*. *J.D.H.*

Fig. 1. Flower. *f.* 2. Stamen. *f.* 3. Ovarium. *f.* 4. Leaf:—*all magnified.*

TAB. DCCCXCV.

Drapetes ericoides, *Hook. fil.*

Suffruticulus cæspitosus, caule erecto ramoso, ramis robustis erectis glaberrimis cicatricatis, foliis imbricatis linearibus lineari-subulatisve obtusis striatis marginibus dorsoque versus apices sericeo-villosis, floribus ad apices ramulorum paucis foliis occultis perianthio villoso inarticulato tubuloso limbi lobis 4 obtusis patulis basi 2-glandulosis, staminibus 4, ovarium gibbosum apice ciliatum.

Hab. Borneo; exposed peaks of Kini Balu, alt. 8500 feet, *H. Low, Esq.*

The only two species of *Drapetes* hitherto described are natives, one of the New Zealand Alps, and the other of Fuegia. Of these the American one has the perianth jointed at the middle, no scales or glands at the mouth of the perianth, and a plumose stigma; the New Zealand species again has a continuous tube of the perianth (as in the Borneo plant), its mouth closed with four broad prominent scales, and a capitate stigma. In habit and foliage these three plants are remarkably similar. *J. D. H.*

Fig. 1, 2. Leaves. *f.* 3. Top of branch with flowers. *f.* 4. A flower. *f.* 5. The same with the perianth cut open. *f.* 6. A stamen:—*all magnified.*

Fitch del.et lith.

Vincent Brooks Imp.

TAB. DCCCXCVI.

Drimys piperita, *Hook. fil.*

Frutex v. arbuscula glaberrima, ramulis novellis glaucis, foliis concoloribus obovato-lanceolatis acuminatis integerrimis utrinque lævibus reticulatim venosis, floribus unisexualibus, calyce 2-sepalo, masc. petalis 8–10 lineari-oblongis obtusis, staminibus plurimis, fœm. petalis 6 elongatis, ovariis 4.

Hab. Borneo; Kini Balu, alt. 8000 feet, *H. Low, Esq.*

This is another very remarkable discovery of Mr. Low's, connecting the alpine flora of tropical Borneo with that of the south temperate and antarctic latitudes; the nearest ally of this plant being the *Drimys Winteri* of the Straits of Magellan. This is also nearly allied to the genus *Tasmannia* of Australia and Tasmania, the flowers being unisexual, whether monœcious or diœcious I do not know, but there are four carpels in all the flowers I have examined of this. The leaves are, even when dry, extremely aromatic, hot, and peppery to the taste. *J. D. H.*

Fig. 1. Ovaria of the female flower. *f.* 2. A male flower. *f.* 3. Stamen. *f.* 4. Its rudimentary ovaria:—*all but f.* 2 *magnified.*

Fitch del et lith.

Vincent Brooks Imp.

TAB. DCCCXCVII.

Agalmyla tuberculata, *Hook. fil.*

Caule ascendente robusto, ramis pedunculis petiolis costa nervisque folii subtus villoso-pubescentibus, foliis oppositis ternisve longe petiolatis ovatis ellipticisve acuminatis serratis supra remote tuberculatis junioribus hispidulis, corymbis axillaribus 4–8-floris, calyce infra medium 5-fido, corollæ tubo gibboso velutino lobis brevibus rotundatis, staminibus 4 exsertis, stigmate 2-lamellato.

Hab. Borneo; Kini Balu, alt. 8000 feet, *H. Low, Esq.*

This beautiful plant agrees pretty well with the description of *Agalmyla asperifolia*, Blume (Bijd. p. 767), except in that the flowers cannot be called fasciculate, and the leaves are generally ternate. The said description is short and imperfect, and so equally applicable to several similar plants, that it appears to me unadvisable to pronounce this plant (which comes from so widely different a locality) to be the same with the Javanese one intended by Blume. I am further doubtful how far the genus *Agalmyla*, as at present characterized, is tenable, the *A. tuberculata*, for instance, being much more nearly allied to *Æschynanthus* than the diandrous *Ag. staminea*, Blume, which has alternate leaves. *J. D. H.*

Fig. 1. Young ovarium surrounded with its disc:—*magnified.*

1.
2.
3.
5.
4

TAB. DCCCXCVIII.

Leucopogon lancifolius, *Hook. fil.*

Fruticulus erectus ramosus, ramis cicatricatis, ramulis glaberrimis, foliis laxe imbricatis lanceolatis lineari-lanceolatisque acuminatis aristatis coriaceis striato-nervosis utrinque marginibusque lævibus, floribus parvis intra folia occultis axillaribus solitariis binisve brevissime pedicellatis 2-bracteatis, bracteis late ovatis, sepalis ovato-lanceolatis tubum corollæ æquantibus, corollæ lobis intus villosis.

Hab. Heathy plains on the north coast of Borneo, *H. Low, Esq.*, found with *Bæckea Cummingiana*.

A twiggy shrub, a foot to a foot and a half high, everywhere quite smooth. *Branches* scarred. *Leaves* imbricate, half an inch long, lanceolate with an aristate point, nerveless, striated. *Flowers* very small, hidden among the leaves, axillary, solitary or two together, nearly sessile. *Calyx* as long as the tube of the ovary.

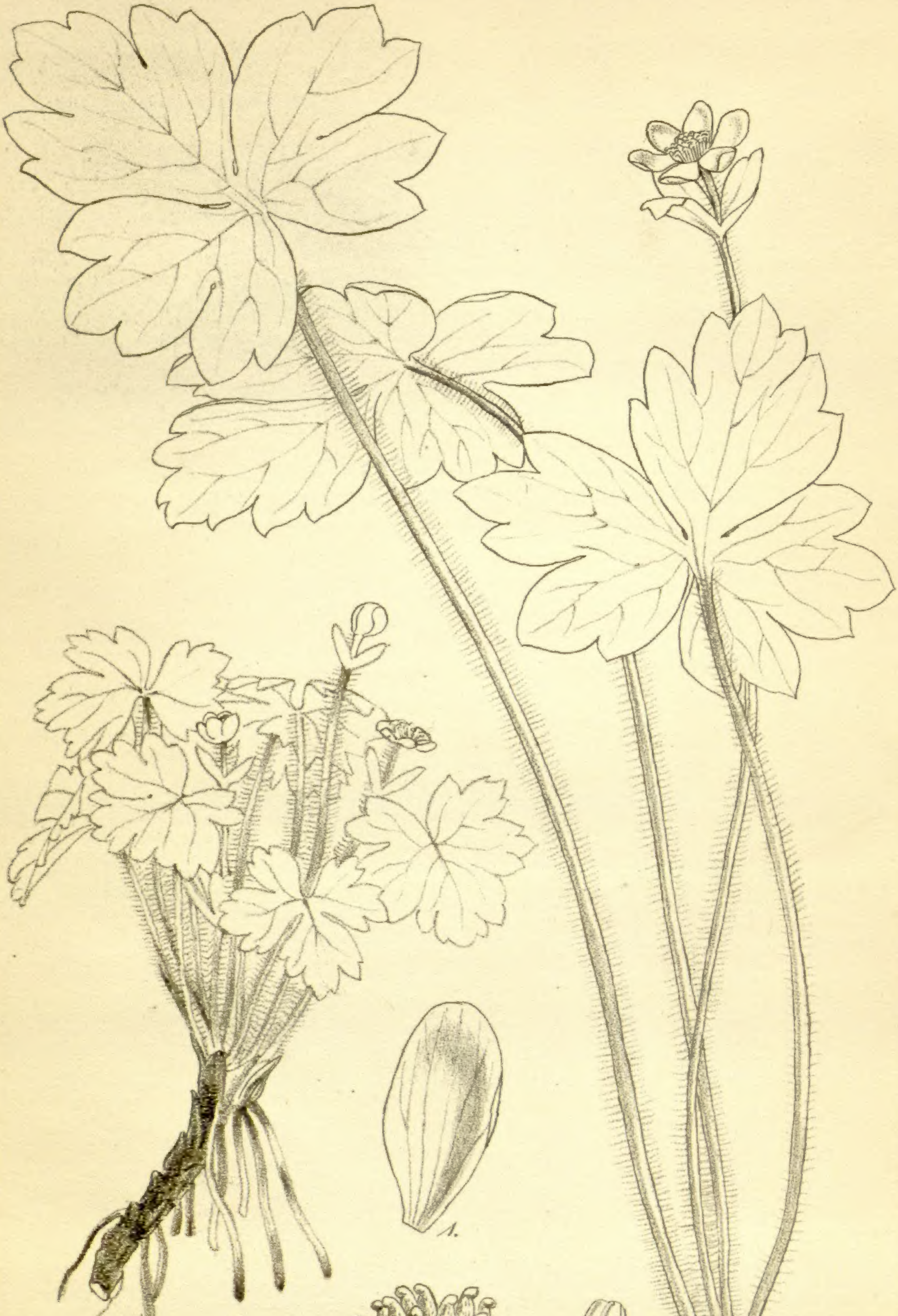
Another Borneo species of *Leucopogon*, found on Kini Balu by Mr. Low, may be characterized as follows:—

Leucopogon *suaveolens*, Hook. fil.; glaberrimus suberectus ramosus, ramis cicatricatis ramulisque robustis, foliis imbricatis lineari-oblongis linearibusve subacutis marginatis dorso glaucis nervis parallelis lineolatis extimis pectinatim ramulosis, racemis folio brevioribus 3–4-floris puberulis, floribus parvis brevissime pedicellatis, bracteis minimis obtusis calycis lobis ovatis obtusis tubo corollæ æquilongis, corollæ lobis intus villosis.

Hab. Kini Balu, alt. 7500 feet, *H. Low, Esq.*

Mr. Low describes the flowers of this plant as very sweet. It much resembles a Sandwich Island *Cyathodes*, *C. Tameiameiæ*, Cham., as also the New Zealand *Leucopogon Colensoi*, Hook. fil. in Fl. Nov. Zealand. *J. D. H.*

Leucopogon lancifolius. *Fig.* 1, 2. Leaves. *f.* 3. Flowers. *f.* 4. Corolla cut open. *f.* 5. Stamen:—*all magnified.*



Fitch del. et lith.

Vincent Brooks Imp.

TAB. DCCCXCIX.

Anemone Falconeri, *Thoms.*

Scapo unifloro petiolisque patentim pilosis, involucri 3-phylli foliolis sessilibus oblongis 3-dentatis pedicellum æquantibus v. paulo superantibus, foliis 3-partitis segmentis inciso-dentatis, sepalis 6–7 ovalibus, ovariis pilosis, acheniis muticis. *T. T.*

Hab. Kashmir, in shaded woods. Fl. April. *Dr. T. Thomson.*

This little plant appears to be intermediate between the genus *Hepatica*, which has a sessile flower, and the *Anemonanthea* section of *Anemone*, which has divided involucral leaves and muticous achenia. It is, I presume, the Kashmir "*Hepatica*" alluded to by Dr. Falconer in Royle's 'Illustrations of Himalayan Botany.' *T. T.*

Fig. 1. Sepal. *f.* 2. Stamen. *f.* 3. Head of pistils. *f.* 4. Pistil, separate:—*magnified.*

Fitch del. et lith.

Vincent Brooks Imp.

TAB. DCCCC.

Hutchinsia Tibetica, *Thoms.*

Herba diffusa e basi ramosa molliter pilosa, foliis plerisque radicalibus pinnatim partitis, pinnis oblongis integerrimis incisisve, racemis demum elongatis, bracteis inferioribus foliaceis superioribus minutis v. 0, floribus albis, siliquis ellipticis compressis apice retusis stylo brevi crasso apiculatis, valvis carinatis dissepimento angustissimo enervi contrariis, seminibus numerosis podospermiis liberis pendulis, cotyledonibus incumbentibus. *T. T.*

Hab. Western Tibet; Lanak Pass, alt. 18–19,000 feet, *Thomson.* Mountains above Pangong Lake, *Capt. H. Strachey.* Fl. and fr. Aug., Sept.

I have referred this plant to *Hutchinsia*, although the cotyledons are incumbent, in preference to putting it in *Capsella*, a truly natural genus, with which this does not accord well in habit or form of pod. Dr. Arnott pointed out to me its affinity with *Capsella obovata* of Siberia, which is the *Hutchinsia prostrata* of some authors; a plant closely allied to the *H. petræa* of Europe, but agreeing with *H. Tibetica* in having incumbent cotyledons. *T. T.*

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Stamen. *f.* 4. Stamen and ovary. *f.* 5. Capsule. *f.* 6. Dissepiment. *f.* 7. Seed. *f.* 8. Embryo:—*all magnified.*